

INTERNATIONAL PROPERTY RIGHTS INDEX (IPRI)

# 2007 REPORT

Study conducted by Alexandra C. Horst, 2006 Hernando de Soto Fellow



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In 2006, the Property Rights Alliance created a fellowship in my name for research in the area of private property rights – a pleasant surprise. I am now pleased to present the results of the work by the first De Soto Fellow: the International Property Rights Index (IPRI), an international gauge of property rights, country by country. I am especially delighted that this report is appearing at a time when the importance of legal property rights to economic prosperity is much better understood than when I and my colleagues at the Institute for Liberty and Democracy (ILD) first started researching these issues in the 1980s.

Today, throughout the developing and post-Soviet world, most people still do not have access to the legal property system and are forced to operate outside the law in what we at the ILD call the “extralegal economy” – where they do not have access to the essential legal mechanisms easily available to the elite entrepreneurs in their country and all business people in advanced nations: legal property rights, mechanisms for organizing their businesses in productive ways, and identity devices that will allow them to do business in markets outside the limited confines of family and acquaintances.

The 2007 International Property Rights Index is the first step to numerically capture this lack of legal property rights protection by integrating aspects of both physical and intellectual property rights. The IPRI and its ranking that compares countries according to the strength and effectiveness of their property rights protection will be a useful tool for policymakers, academics, business leaders, think tanks, and other researchers.

This maiden edition of the International Property Rights Index starts off with a first inventory of property rights aspects. Collecting all the property rights data will be a challenge, particularly in the developing world where informal market activity is the rule rather than the exception, and most researchers do not know where to look for extralegal property rights. This is why it is critically important to also include in the future methods for diagnosing the informal practices of the extralegal sector, identifying the bad property law, and recommending reforms.

The Hernando de Soto Fellowship Program and its International Property Rights Index study are to be understood as a project “under construction”, a long term assignment that will be continuously improved and expanded in order to serve as the most accurate and comprehensible comparative country gauge of property rights protection on an international scale. What you have in your hands is an impressive beginning, and I would like to congratulate Alexandra Horst, the 2006 Hernando de Soto Fellow for her work developing and researching this project.

I am honored that this program bears my name and look forward to future IPRI study results.

Warmest regards,

Hernando de Soto  
President of the Institute for Liberty and Democracy (ILD)  
Lima, Peru

As Tom Bethell wrote in *The Noblest Triumph*, "When property is privatized, and the rule of law is established in such a way that all including the rulers themselves are subject to the same law, economies will prosper and civilization will blossom." Private property, in a variety of forms across the spectrum, can in fact transform economies by bringing the *extralegal* market into the *legal* framework. Nonetheless, property rights continue to face immeasurable challenges around the globe.

Thus, Property Rights Alliance (PRA), in conjunction with our global partners, is proud to present the first annual International Property Rights Index (IPRI) as a reflection of the impact the rule of law and property rights have on modern economies. Personal property rights are deeply rooted in our modern societies and possess far greater importance than ever before. Economic growth is inextricably linked with ownership, and the IPRI reflects the existence of a strong, positive correlation between sound property protections and a country's economic well-being.

I, like other property rights advocates, subscribe to the "Big Tent" theory of property rights: the view that private property rights function on a continuum ranging from the physical to the intellectual in nature. Providing individuals the opportunity to profit through one's own productive endeavors allows property rights, no matter its form, to become the keystone of modern capitalism and civilization. This could be no more recognizable than through the writings of Karl Marx and Frederick Engels in *The Communist Manifesto*, where the prerequisite for socialism was the "ABOLITION OF PROPERTY".

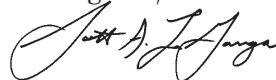
As modern economies around the globe have witnessed, the fundamental right to property provides the confidence to protect the innovation and investment of the creator. The great discoverers and brilliant thinkers of the world will continue to rely on a system that will incentivize the boundless limits of innovation and design. Similarly, land rights instill a sense of ownership that greatly improves modern economies through investment and stewardship by its citizens. Equally important as the rights themselves is the ability for countries to uphold the rule of law and provide a sound legal forum, free from corruption, for the grievances its citizens may suffer.

There are some who incorrectly claim that strict property protections prevent developing countries and their citizens from unlocking their potential. Such assertions are the opposite of the reality on the ground. The 2007 IPRI presents an argument based on concrete, measurable data; well structured private property rights allow individuals and firms to feel secure and provide them with an incentive to innovate and produce. As it is, many of these developing countries see their best and brightest plucked away to more developed states simply because established and enforced property rights laws translate to greater economic well-being. This "brain drain" can and will cripple these already fragile economies. With this Index, Property Rights Alliance and its global partners hope to assist developing countries to view the results as a testament to the necessity to strengthen their property rights system for the better.

We would like to thank all of our partners for their dedication and contribution to this report. Many global organizations and individuals that preceded PRA laid the groundwork for the development of an index and study such as the 2007 inaugural IPRI. Without the labors and wisdom of these advocates, the IPRI could not have come into being.

Finally, a special thank you to my friend Hernando de Soto, whose vision over many decades has educated and inspired millions around the globe.

Best regards,



Scott A. LaGanga

Executive Director of the Property Rights Alliance  
Washington, DC

## ACKNOWLEDGEMENTS

We wish to express our special thanks to Hernando de Soto (ILD) for his tremendous work in the property rights arena, in addition to the inspiration, personal conversations and allowance to name this PRA fellowship program after him. We are delightedly looking forward to continuing our work with him and the Institute of Liberty and Democracy (ILD) in the future. Also, we are particularly grateful for the intellectual and financial assistance of Grover Norquist and the Americans for Tax Reform Foundation, which will enable Property Rights Alliance to continue offering the Hernando de Soto Fellowship and bring forth the development of the International Property Rights Index Project in 2007 and beyond. We add a special thank you to the Americans for Tax Reform staff for their patience and assistance. And additional thanks to John Uhlmann for his generous support of the 2006 Hernando de Soto Fellowship program.

Valuable support for this report was also provided by the frequent data and opinion exchange, in addition to their helpful comments throughout the project phase with Todd Krueckeberg (USPTO), Prof. Robert Lawson (Capital University), Irene Mia (World Economic Forum), Prof. Walter Park (American University), Prof. Steve Pejovich (Texas A&M University), David Sanders (USPTO), Prof. Andrei Shleifer (Harvard University), and Mario Villarreal Ph.D. (American Enterprise Institute).

Our warm thanks also go to Dana Berliner (Institute for Justice), Karol Boudreaux (Mercatus Center at George Mason University), Elizabeth Brubaker (Environment Probe), Giovanni Caputo (Italian Confederation of Property Owners), Prof. Daniel Cole (Indiana University), Jim DeLong (The Progress & Freedom Foundation), Andi Dervishi (International Finance Corporation), Prof. Richard Epstein (University of Chicago), Ana Isabel Eiras (The Heritage Foundation), Jesse Feder (Business Software Alliance), Thierry Geiger (World Economic Forum), Robert Gordon (Committee on Resources, US House of Representatives), Mike Hardiman (American Land Rights Association), Lena Heron (USAID), Prof. Peter Hill (Wheaton College), Brian Hooks (Mercatus Center at George Mason University), Tim Kane Ph.D. (The Heritage Foundation), Nicholas Klissas (USAID), Sacha Kumaria (Stockholm Network), Andrew Langer (NFIB), Carolyn Lesorogol Ph.D. (Washington University at St. Louis), Norman Loayza-Ojeda Ph.D. (The World Bank), Timothy Mahoney Ph.D. (USAID), Garland McCoy (The Progress & Freedom Foundation), Barun Mitra (Liberty Institute), Luis Morales-Bayro (Institute for Liberty and Democracy), Julian Morris (International Policy Network), Iain Murray (Competitive Enterprise Institute), Michael New Ph.D. (University of Alabama), Ivan Osorio (Competitive Enterprise Institute), Prof. Elinor Ostrom (Indiana University), John Palatiello (Management Association for Private Photogrammetric Surveyors), Prof. Sylvia Saes (University of Sao Paulo), Prof. Friedrich Schneider (University of Linz, Austria), Fred Smith (Competitive Enterprise Institute), Daniel Steudler (Federal Office of Topography), Maria Strong (International Intellectual Property Alliance), John Sullivan (Center for International Private Enterprise), Alec van Gelder (International Policy Network), Seth Voyles (Committee on Resources, US House of Representatives), Bridgett Wagner (The Heritage Foundation), Kathryn Webb (Business Software Alliance), Carter Wood (National Association of Manufacturers).

We look forward to continuing our work with our partners in the future in order to improve and extend the Hernando de Soto Fellowship Program and its International Property Rights Index Project for many years to come.

**Alexandra C. Horst**, 2006 Hernando De Soto Fellow  
**Scott A. LaGanga**, Property Rights Alliance Executive Director

## ABOUT THE AUTHOR

Ms. Alexandra Christina Horst is a graduate of the 2005/2006 Advanced Studies Program in International Economic Policy Research at the Kiel Institute for World Economics in Germany. She received a Master of Science degree in economics from the University of Maastricht, the Netherlands, in 2005. During her graduate studies she spent time in Peru and Bolivia where she learned about Hernando de Soto's work and gained hands-on experience in the problems and consequences resulting from the lack of property rights that De Soto references in his works. Given this expertise, Ms. Horst developed genuine interest in research in the area of growth and development theory, as well as the role of property rights in economic development. This motivated her to develop the first International Property Rights Index as the 2006 Hernando de Soto Fellow.

## SELECTED STUDY HIGHLIGHTS

### **International Property Rights Index (IPRI) Ranks Seventy Countries**

The International Property Rights Index covers seventy nations, both industrialized and developing, from every region in the world. In total, the IPRI country set represents ninety-five percent of world GDP.

### **Northern European Countries Hold Top Honors**

The nations attaining the highest scores in the IPRI Ranking are advanced industrialized countries from Northern Europe, particularly Scandinavia. Norway obtains the highest score of the seventy countries rated.

### **Bottom Group is from Africa and Latin America**

The bottom quartile of the IPRI predominantly includes countries from Africa and Latin America but also Russia and other Central European nations. The weakest performing country of the study sample is Bangladesh.

### **Average IPRI Rank is 5.3**

The average rank for the whole study's country set is 5.3, on a scale from 0 (weakest property rights protection) to 10 (strongest protection). The highest score obtained is 8.3, while the lowest score is 2.2.

### **Countries with Stronger Property Rights Protection Benefit from Higher Income**

Countries in the top quartile of the IPRI ranking have an average GDP per capita of \$32,994, more than seven times higher than countries which rank in the bottom quartile.

### **Positive Relationship Between IPRI and Economic Well-Being**

The correlation of the IPRI Rank and GDP per capita is eighty-nine percent and thereby underlines the positive relationship of effective property rights protection and income.



## EXECUTIVE SUMMARY

The 2007 International Property Rights Index (IPRI) is the first international comparative study that measures the significance of both physical and intellectual property rights and their protection for economic well-being. With this first edition, PRA has initiated a new series of IPRI studies for the Hernando de Soto Fellowship Program that will contribute to developing accurate and comprehensive measures regarding property rights (PR) on an international scale. The International Property Rights Index will provide the public, researchers and policymakers, from across the globe, with a tool for comparative analysis and future research on global property rights. In order to incorporate and grasp the important aspects related to property rights protection, the Index focuses on three areas: **Legal and Political Environment (LP)**, **Physical Property Rights (PPR)**, and **Intellectual Property Rights (IPR)**. The current study analyzes data for seventy countries around the globe, representing ninety-five percent of world GDP. Of great importance, the 2007 gauge incorporates data of PR protection from various sources, often directly obtained from expert surveys within the evaluated countries.

The final results present the case that countries in the higher rankings of the IPRI are primarily advanced industrialized economies, particularly Western Europe (Scandinavia) and North America. Countries that show a weak performance with respect to property rights protection are African and Latin American nations, in addition to the Central European nations. Furthermore, a few of the countries included achieved rather surprising positions in the ranking, and are discussed in greater detail later in the report. In general, however, it is found that better performing countries (1st Quartile in ranking) enjoy, on average, a GDP per capita income of more than eight times their counterparts at the lower quartile of the Index. These simple relationships between the IPRI performance and GDP per capita quantitatively support the generally-assumed positive correlation between property rights protection and economic well-being. In addition to the general IPRI measure, the authors provide an additional measure, incorporating an index of gender equality with respect to property rights. The general findings and relationships hold with this extended measurement as well.

As the 2007 International Property Rights Index represents one of the first attempts to devise and launch an international gauge that ranks countries according to their strength and effectiveness in protecting property, the limitations of the study with respect to detail, data scope and country coverage are clear. The four months of initial investigation by the 2006 Hernando de Soto Fellow have primarily been dedicated to basic conceptualization and subsequent data research. The information and results obtained in the 2007 Index will serve as the foundation and basis for further development and annual publication of the Index. Moreover, work conducted by future Hernando de Soto Fellows will ultimately focus on overcoming the current constraints encountered due to a lack of quantifiable data for other nations, and will seek to continually improve the quality of the Index. In order to accomplish this goal, the De Soto Fellowship Program will work in conjunction with third-party advocacy organizations, think tanks and business organizations from around the globe.

The remaining components of the study consist of seven chapters, with Chapter I introducing the importance of property rights protection in its varying forms, and Chapter II outlining the purpose of the Hernando de Soto Fellowship and the International Property Rights Index. Chapter III presents the concept and methodology of the IPRI and Chapter IV summarizes the study's findings. Chapter V presents an extended version of the IPRI, taking into account the degree of gender equality with respect to private property. Chapter VI lists the data sources used in the development of the Index, and finally, Chapter VII discusses supplementary notes and future plans for the IPRI study and the Hernando de Soto Fellowship Program.

### **Data for Researchers**

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The full data set, including all exhibits published in this report, can be obtained at [www.InternationalPropertyRightsIndex.org](http://www.InternationalPropertyRightsIndex.org).

## CHAPTER I: INTRODUCTION

Property rights are the vital prerequisite for economic progress and prosperity. In many countries around the globe, the legal right of ownership is taken for granted as individuals are offered choices in the manner by which they desire to utilize their property. For example, on a very systematic basis, an individual can decide whether or not to share his property, invest or sell the property, acquire additional assets, or simply transfer the property (e.g. passing of the property to one's heirs).

Yet citizens of other nations often lack these same choices which are established upon principles of freedom and capital markets. Often this can be due to reasons including a failed legal structure for the establishment of a right of property under the government (e.g. weak deed and titling system), or because these rights lack enforceability from a forced seizure by others or perhaps even the government itself (e.g. strong court system). This shortage of suitably established property rights and rule of law is detrimental to a nation's social and economic development and subsequently, its relations with other countries. Not only will a weakened structure lead to a consequent lack of trust in the legal property rights system, which further encourages informal market activity (e.g. black markets), but it also negatively influences investment decisions by an investor or multinational interest for fear of a lost return. The degree to which intellectual property is protected also highly influences a country's inventive character as it shapes the flow of innovative ideas and products that are developed, which in turn affects creative and economic wealth. As De Soto has said, "...many of the poor are much richer than we think."

Consciousness of the critical importance of property rights has increased substantially over recent decades. In the case of physical property rights for example, one instantly is reminded of the wide spread public attention and discussion surrounding the transition of Central and Eastern European countries from communist regimes to free market epicenters. This transition represented a fundamental shift in philosophy of public sectors, from one based on zero respect for private rights and the role of the "individual", to another of free-market democracies where private property and competitive tax systems play a crucial role in fostering economic well-being.

Even more attention has developed around issues concerning the right and protection of intellectual property (IP). Once a domain mainly considered by the affected inventors and companies themselves, public interest in intellectual property protection has risen substantially, as the vast majority of the world is now affected by its success or failure. Increasingly the individual consumer realizes that IP is not only about patents, copyrights, or movie piracy, but that IP protection similarly incorporates counterfeit pharmaceuticals and imitation manufactured products, ranging from automotive to aeronautic parts that can affect one's health each and every day.

Given this atmosphere of increased awareness of the significance of effective property rights protections, this publication presents the first International Property Rights Index (IPRI). The IPRI is the product of a research program named after one of the most influential property rights advocates and world economists: Hernando de Soto, President of the Institute for Liberty and Democracy

(ILD) in Lima, Peru. The International Property Rights Index is designed as a gauge that categorizes countries according to their strength and effectiveness in the defense of private property rights, both physical and intellectual in nature. The study aims at providing the public, researchers and policymakers with an accurate global measurement and presents comprehensive results which emphasize the role of private property rights for economic progress. The basic assumption behind a study of this nature is that a more effective protection of private property translates to an increase in long-term economic well-being. For example, the 2007 IPRI shows that a country scores higher if its legal and political system secures the right of the property owner, if clear access to property ownership is facilitated, and if protection of those rights is tenable.

Furthermore, the study clearly presents the case that top performing countries in the IPRI are among the richest economies in the world. With a per capita income of more than seven times that of lower performing nations, the positive correlation between property rights protection and economic well-being is underlined in the top-line results. In sum, the 2007 International Property Rights Index offers strong institutional and policy incentives for countries to improve their property rights system to achieve greater prosperity and benefit from the advantages of their systematic protection.

## CHAPTER II: PREMISE FOR THE HERNANDO DE SOTO FELLOWSHIP PROGRAM

This chapter explains the inspiration behind the Hernando de Soto Fellowship, the aim in creating the International Property Rights Index (IPRI), and highlights of the Index's importance for future research related to private property rights. Moreover, Chapter II describes the long-term plans for improving IPRI's quality and dependability.

### Property Rights Alliance (PRA) and the Hernando de Soto Fellowship

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The premise and development of an international index of property rights (PR) is due to the efforts of the Washington, DC-based Property Rights Alliance (PRA), dedicated to the protection of physical and intellectual property rights in the domestic and international communities. Property Rights Alliance is an affiliate of the taxpayer advocacy organization, Americans for Tax Reform (ATR).

Despite the growing accessibility of international data and research in the property rights arena, existing indices and studies traditionally focus on either the physical or intellectual aspects of property rights. With the exception of the Heritage Foundation/Wall Street Journal *Index of Economic Freedom* and the Fraser Institute *Economic Freedom of the World* report, most global indices are dedicated to broader topic areas than a more nuisance debate on private property rights. To overcome the consequent lack of a more broadly defined PR gauge, Property Rights Alliance introduced the *Hernando de Soto Fellowship Program* in 2006<sup>1</sup>, with the core aim of this annually offered fellowship to provide continuous data development and concept improvement for the annual publication of the International Property Rights Index, presented for the first time in this report.

### International Property Rights Index (IPRI)

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With the inaugural publication of the International Property Rights Index, PRA accounts for the interest of a variety of domestic and international organizations for the development of an innovative gauge which ranks countries according to their strengths and efforts to protect both physical and intellectual, property. Given the positive affect of a country's strong *legal framework*, *adequate physical property rights enforcement*, and *respect for intellectual property* as critical aspects to a nation's economic development, the IPRI embraces all three variables as core components. More detailed information on the composition and coverage of the IPRI can be found in Chapter III.

The long-term purpose of the IPRI is to amplify the role that private property plays in increasing a nation's economic well-being. The publication of the IPRI will continue on an annual basis and thereby allow researchers, business leaders and government officials to regularly compare one nation to another, constantly evaluating the strength of its PR regime.

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<sup>1</sup> For more information on the fellowship, visit [www.propertyrightsalliance.org/images/PRA\\_desoto\\_fellowship.pdf](http://www.propertyrightsalliance.org/images/PRA_desoto_fellowship.pdf)

The reader is reminded that the 2007 Report is the first publication of the International Property Rights Index. Following a four month period of research and analysis, the authors remain certain that this report possesses limitations with respect to conceptualization and data scope. With the Hernando de Soto Fellowship Program remaining an ongoing project, PRA hopes to overcome any limitations in the future.

Also, Property Rights Alliance would like to emphasize its appreciation for the collaboration of organizations and institutions around the world that have provided tremendous knowledge and effort towards this report. The network of partner organizations included in this year's report will continue to immensely improve global communications of property rights issues and maximize the future value of the International Property Rights Index for all parties involved.

The following chapter will review the conceptualization and coverage of the IPRI and engage in an in-depth analysis of the integrated factors.

## CHAPTER III: INDEX COMPOSITION AND COVERAGE

This chapter highlights the concept behind the International Property Rights Index, presents the categories and factors included in its 2007 publication, and provides a detailed explanation on the Index's methodology and country set.

### The Concept

Many questions arise when conceptualizing a measure which calibrates a nation's strength and effectiveness in defending private property rights. Critical questions such as: *"Which factors should be included in such an index?"* And of great importance, *"What factors are feasible to include given certain data constraints, especially for developing countries?"*

The concept of the 2007 International Property Rights Index is based on the definitions of "property" and "property right" presented below. The Index was then shaped by expert responses to a basic opinion survey (see Appendix V) and personal communications with academic and business specialists in the property rights field. The basic assumption behind the study is that a more effective protection of private property correlates to stronger economic growth.

The definitions of "property" and "property right" given in the Encyclopaedia Britannica and Merriam-Webster's Collegiate Dictionary, respectively, are the following:

**Property:** an object of legal rights, which embraces possessions or wealth collectively, frequently with strong connotations of individual ownership. In law the term refers to the complex of jural relationships between and among persons with respect to things. The things may be tangible, such as land or goods, or intangible, such as stocks and bonds, a patent, or a copyright.

**Property Right:** a legal right or interest in or against specific property.

Based on these definitions of property and the right of property, the study's assumptions and results derived from the opinion survey, the IPRI incorporates three core categories essential to the strength and protection of a country's private property system<sup>2</sup>:

- 1) Legal and Political Environment (LP)
- 2) Physical Property Rights (PPR)
- 3) Intellectual Property Rights (IPR)

<sup>2</sup> Note that the words *category*, *area* and *component* are used interchangeably. Similarly, the words *factor*, *sub-component* and *variable* are substitutes.

The Legal and Political Environment (LP) component represents the fundamental foundation under which individuals can benefit from the existence of private property rights. Judicial independence and the protection of property rights through the court system, as well as a transparent and stable legal and political system are vital for individual rights to flourish and be respected. Factors two and three emphasize essential aspects regarding the protection of physical and intellectual property rights, respectively. The factors included in these two categories account for important *de jure* rights and *de facto* outcomes of the countries considered. For detailed information of the 2007 IPRI structure, Exhibit 3.1 displays the list of all individual factors per component area.

Several things must be kept in mind when understanding the conceptualization and the outcomes of the International Property Rights Index. First, the 2007 IPRI ranking covers a relatively high number of nations from greatly varying economic, political and cultural backgrounds. Consequently, many of the countries' idiosyncratic characteristics with respect to property rights protection and strength cannot be considered in the Index. Second, none of the data used for the construction of the IPRI is generated by the authors themselves but was instead collected from third-party sources such as the World Bank, World Economic Forum and US Trade Representative (USTR). As the data collection process for future IPRI proceeds, we hope to obtain greater quantities of data with the help of existing and future partner organizations within the countries themselves, in addition to the (inter)national sources that were used for the 2007 Index. Third, the data for the 2007 IPRI is mainly "subjective", stemming from surveys or expert opinions. In future editions, PRA will focus on balancing the amount of statistically subjective and objective data, depending on their quality and reliability. Fourth, the transparency of IPRI's data sources, methodology and conceptualization is important to the authors. Thus, complete descriptions of those components are presented in the *Explanatory Notes* section of this chapter, Chapter VI on Data Sources and finally in Appendix II. For further information, the authors can always be contacted via Property Rights Alliance ([www.propertyrightsalliance.org](http://www.propertyrightsalliance.org)). The following sub-section describes each of these factors and highlights their importance with respect to the protection of property rights.

## The Factors

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The 2007 IPRI comprises a total of eleven factors, which are divided into the three main categories mentioned above: Legal and Political Environment (LP), Physical Property Rights (PPR), and Intellectual Property Rights (IPR). Despite a larger number of property rights related variables collected by the authors, the final IPRI study focuses only on core factors that directly relate to the strength and protection of private property rights. The final ranking is very similar to the alternative rankings calculated with other factors included, and was preferred by the authors as it suffers less from the problems of dilution.

Of the eleven factors incorporated into the index, the "Registering Property" variable is made up of two sub-variables. Thus, in sum the IPRI comprises twelve components of data for each country. For more detailed information on the methodology by which the raw data was transformed into the IPRI ranking and a detailed description on the construction of the finished product, refer to the *Explanatory Notes* section below and in Appendix II. Information on the factors' data sources can be found in Chapter VI. In the following, each factor and its relation to property rights protection and effectiveness is discussed for each category.



**Exhibit 3.1: Structure of the IPRI**

## 1) Legal and Political Environment (LP)

- Judicial Independence
- Confidence in Courts
- Political Stability
- Corruption

## 2) Physical Property Rights (PPR)

- Legal Protection of Property Rights
- Registering Property
- Access to Loans

## 3) Intellectual Property Rights (IPR)

- Protection of Intellectual Property Rights
- Patent Strength
- Copyright Piracy
- Trademark Protection

## Legal and Political Environment (LP)

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The soundness of a country's legal and political systems AND its viewpoints toward the importance and protection of property rights represent crucial preconditions for the effective implementation and public support for private property rights. Therefore, the following four factors are considered in the LP category:

### **Judicial Independence**

This factor examines the judiciary's freedom from influence by political and business groups. The independence of the judiciary is a central underpinning for the sound protection and sovereign support of the court system with respect to private property and is therefore considered in the IPRI. Source: *World Economic Forum's 2006 Global Competitiveness Index*.

### **Confidence in Courts**

"Confidence in Courts" examines the extent to which business managers are confident in the court system to uphold and enforce their property rights. This variable is to be seen as complementary to the "Judicial Independence" factor as it specifically rates the judiciary's way of implementing property rights in business matters. This is important as it reflects the degree of trust that economically active individuals have in their legal system, which then influences their engagement in business activities and investment choices. Sources: *2006 World Bank's World Development Indicators* which it is drawn from the *World Bank's Investment Climate Surveys*.

### **Political Stability**

The "perception of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism" is captured in this factor. The degree of political stability crucially influences one's incentive to obtain or extend ownership and/or management of property. The higher the likelihood of (violent) overthrow, the less likely people will be to obtain property and develop a trust in the validity of these rights. Source: *World Bank Institute's 2005 Worldwide Governance Indicators*.

### **Corruption**

Corruption in the public sector is drawn from Transparency International's 2005 Corruption Perceptions Index and reflects experts' views on the misuse of power by public officials for private benefit. Similar to the other factors included in the Legal and Political Environment category, corruption influences the people's confidence in the existence of sound implementation and enforcement of property rights. Corruption reflects the degree of informality in the economy, which is a distracting factor to the expansion of respect for legal private property. Source: *Transparency International's 2005 Corruption Perceptions Index*.

## **Physical Property Rights (PPR)**

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The PPR category encompasses three variables of high importance in private property rights protection. It covers experts' opinions on the definition and protection of property rights, a business' difficulty in registering property and the ease of access to banking loans.

### **Legal Protection of Property Rights**

This variable directly relates to the strength of a country's property rights system as it mirrors experts' views on the quality of the judicial protection of private property, including financial assets. Additionally, it encompasses professionals' opinions on the clarity of the legal definition of property rights. Source: *World Economic Forum's 2006 Global Competitiveness Index*.

### **Registering Property**

The "Registering Property" factor reflects businesses' point of view on how difficult it is to register property in terms of the number of days and procedures necessary. According to the source of this information, the variable "records the full sequence of procedures necessary when a business purchases land and a building to transfer the property title from the seller to the buyer..." (p. 66). This information is critical because the more difficult property registration is, the more likely it is that assets stay in the informal sector, thus restricting the development of the broader public's understanding and support for a strong legal and sound property rights system. This variable is a core component in the economic arguments set forth by Hernando de Soto. Source: *2007 World Bank Doing Business Report*.

### **Access to Loans**

The question of whether to integrate the access to loans variable in the IPRI or not was intensely discussed by the authors and the contributing experts in the course of the IPRI's development. Eventually, we decided to include it in our dataset simply because the accessibility to a bank loan represents the opportunity for an individual to subsequently obtain property. Consequently, the easier it is to become a property owner, the stronger society's support for a strong formalized property rights system and its protection will be. Source: *World Economic Forum's 2006 Global Competitiveness Index*.

## Intellectual Property Rights (IPR)

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The IPR category considers five aspects of intellectual property. More generally it evaluates the protection of intellectual property, and additionally it reviews a country's policies and their effectiveness regarding patents, copyrights, and trademarks.

### **Protection of Intellectual Property Rights**

This variable contains the information of opinion survey outcomes reflecting a nation's protection of intellectual property, and is therefore a crucial component of the IPR category. The survey was conducted by the World Economic Forum for its Global Competitiveness Index where expert participants in each country could rate their nations' IP protection from "weak/non-existent" to "equal to the world's most stringent". Source: *World Economic Forum's Global Competitiveness Index*.

### **Patent Strength**

The IPRI's factor on patent strength replicates the information provided by the 2000 Ginatre-Park Index of Patent Rights, thanks to the helpful cooperation of Professor Park. These data are showcased through a country's rank in patent strength which is based on five extensive criteria: coverage, membership in international treaties, restrictions on patent rights, enforcement, and the duration of protection. Source: *Ginatre-Park Index of Patent Rights (2000)*.

### **Copyright Piracy**

The level of piracy in the IP sector is an important indicator for the performance and execution of protecting intellectual property rights in a country. The information for this variable was collected from the 2006 US Trade Representative's 301 Watch List Report and contains information of the piracy level of four separate industries including Business Software, Records & Music, Motion Pictures, and Entertainment Software. As this variable reflects *de facto* outcomes based on hard data, it rates a country according to its effectiveness of protecting IPR. Source: *2006 US Trade Representative's 301 Watch List Report*.

### **Trademark Protection**

This variable reflects the opinion of experts regarding a country's trademark protection. The issues covered by this sub-variable cover the registration, maintenance, and enforcement of trademark rights. The data stems from the International Trademark Association's Report of 1998 on trademark counterfeiting and infringement. Source: *1998 International Trademark Association's Report*.

Following this section's close inspection on the individual factors considered in the International Property Rights Index, the next section will explain in greater detail how the raw data for the variables were transformed into the IPRI rank.

## Explanatory Notes on Methodology

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The overall grading scale of the International Property Rights Index (IPRI) ranges from 0 to 10, with 10 representing the strongest level of property rights protection and 0 reflecting the non-existence of secure property rights in a country. Similarly, each category and factor of the IPRI is placed on the same 0 to 10 scale.

For the calculation of the final Index, the variables within each area are averaged to derive the ratings for each of the three categories. Equally, the final rating is the average of the category ratings. During the construction of the Index, a number of different weighting methods for the (sub-) components were tried, based on the authors' subjective views. However, the choice of the weighting method had little impact on the final rating and ranking of the countries. Thus, for reasons of simplicity and objectivity, the final numbers presented in this report are the result of the simple average calculation that combines the available factors into the three area ratings and the latter into the final IPRI rating. However, the authors do not wish to imply that all components and areas in the Index are of equal importance. Thus, readers who prefer to weight the factors in a different manner are invited to do so.

The eleven factors included in the International Property Rights Index stem from eight different sources (see Chapter VI). In order to combine the factors that did not come in an indexed form and could therefore not be easily normalized to the IPRI's 0-10 scale, we applied the following standardization formula:

$$\left\{ \frac{X_{max} - X_i}{X_{max} - X_{min}} \right\} * 10$$

$X_i$  represents the individual country's value of the factor involved, while  $X_{max}$  and  $X_{min}$  were set at one standard deviation above the original data set's average and zero, respectively. Appendix II displays in detail how the different factors of the IPRI were converted into their final values and gives information on where the individual data was obtained. The following sub-section takes a closer look at which countries are integrated in the final IPRI study.

## The Countries

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The 2007 International Property Rights Index (IPRI) ranks a total of seventy (70) countries from around the world. Covering ninety-five (95) percent of the world's Gross Domestic Product (GDP), these countries differ substantially in economic performance and market structure. For means of comparison, the economies included in the IPRI were assigned to nine geographic regions, with the

highest number of nations coming from Latin America (17), Western Europe (16) and (East-, South-, Southeast-) Asia (12). The other regions represented are Central and Eastern Europe, Middle East/North Africa, Africa, Russia, Oceania, and finally North America (see Appendix III for detailed regional grouping).

It is important to note that the number of countries covered by IPRI's different data sources ranged from forty to two-hundred and thirteen. Therefore the authors were provided with a significant variance in the number of potential countries to be included in the IPRI. In order to be considered for the final IPRI ranking, a nation needed a minimum of one-half of the included variables per category.<sup>3</sup> Consequently, there are some countries which do not enter any of the final country sets of the Index's three categories, and some that are listed in one or two of the category rankings. The countries that qualified for all three categories are the seventy nations displayed in the IPRI ranking. To avoid confusion, all individual category rankings have been limited to show information only on the final set of IPRI countries.

For future publications of the IPRI greater country coverage of both developed and developing countries is desired but may be constrained by the continual absence of data which is necessary for its calculation. Given the originality of the Index and its current limitations (see Chapter VII), future research will hence not only focus on quantity enhancement but primarily center on the improvement and extension of IPRI's conceptual quality and data sources. In Chapter IV, the outcomes of this year's IPRI are presented and discussed in detail.

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<sup>3</sup> In most cases, the countries of the IPRI exceed this minimum criterion.

## CHAPTER IV: RESULTS

The final results of the International Property Rights Index are presented Chapter IV. After a short overview of the data and outcomes, the complete 2007 IPRI rating and ranking will be presented according to its varying criteria. In addition, the results for the individual Index categories and regional performances will be discussed. Finally, the relationship between strong property rights protection and a country's economic well-being will be covered.

### Data and Outcome Characteristics

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The IPRI's 2007 outcomes are mainly based on data obtained from opinion surveys within the sixty-nine countries rated. Generally, experts in their respective field participated in these surveys and the resulting rating, in the form of a numeric factor, is based on their judgment. Thus, it must be emphasized that, based on these sources, the country ranked worst in the IPRI is not necessarily the one with the weakest PR but the one that is *perceived* to be the worst of those countries included in the Index. Nevertheless, the authors appreciate expert surveys to be a good and reliable source of judgment related to a country's *de facto* characteristics compared to focusing only on what is "written in the books". Therefore, we hope that – with the help of (future) partner institutions around the world – we will be able to obtain greater data in the future based on an opinion survey suited to our needs. These efforts will begin with the 2007 Hernando de Soto Fellowship Program for inclusion in the 2008 IPRI.

Next to the factors relying on survey results, there are a few variables based on "hard facts". For example, the number of procedures to register property in a country, or estimations, such as the level of piracy in an economy were included. However, for the future development of the Index we plan to obtain more data based on solid information, especially considering *de jure* facts. For example, it would be valuable to integrate a measure that indicates the strength of constitutional laws that anchor private property protections or the judicial standpoint on expropriation and just compensation. Also, PRA's future De Soto Fellows will concentrate on the improvement of the IPRI methodology and data sources by obtaining data from the most up-to-date sources. This will provide the IPRI users with the most representative data at the time of publication. The 2007 Index contains data that largely stem from the years of 2005/2006 but also includes a single older factor (trademark protection) which was only available for a broad number of countries in 1998.

When studying the results of this year's IPRI Report, the reader's attention is certainly brought to the authors' interpretation of the ranking. In order to maintain the reproductions of the outcomes as objective and comparable as possible, the data are displayed in terms of quartiles within the IPRI rating. Also, when questioning which of the two indicators matters more, a country's place in the overall ranking or its final score, the answer is clearly the latter. The ranking solely enables the construction of the final IPRI ranking but a country's score is a much more essential indication of its performance regarding the protection of property rights.

**Exhibit 4.1: Summary IPRI Ranking**

Rank	Country	IPRI Rank (0= <i>weakest</i> , 10= <i>strongest</i> )	Rank	Country	IPRI Rank (0= <i>weakest</i> , 10= <i>strongest</i> )
1	Norway	8.3		Uruguay	4.9
2	Netherland	8.2		Lithuania	4.9
3	Denmark	8.1	38	Turkey	4.8
	Sweden	8.1	39	Czech Republic	4.7
	New Zealand	8.1		Panama	4.7
	United Kingdom	8.1	41	Malawi	4.6
	Germany	8.1	42	Mexico	4.5
	Australia	8.1		Morocco	4.5
9	Switzerland	8.0		Brazil	4.5
	Austria	8.0	45	Colombia	4.4
11	Finland	7.9		China	4.4
12	Singapore	7.8	47	Philippines	4.2
13	Japan	7.5		Indonesia	4.2
14	Ireland	7.4	49	Poland	4.0
	Canada	7.4		Dominican Republic	4.0
	United States	7.4	51	Argentina	3.8
17	Hong Kong	7.3		Egypt	3.8
18	Belgium	6.8		Bulgaria	3.8
19	France	6.7		Tanzania	3.8
20	Spain	6.5	55	Peru	3.7
21	South Africa	6.4	56	Honduras	3.5
22	Portugal	6.1		Romania	3.5
23	Chile	6.0	58	Ukraine	3.4
	Israel	6.0	59	Kenya	3.3
25	Korea (South)	5.8		Guatemala	3.3
	Malaysia	5.8		Ecuador	3.3
27	Tunisia	5.7		Pakistan	3.3
	Italy	5.7	63	Russia	3.2
29	Greece	5.6	64	Nigeria	3.1
30	Hungary	5.5	65	Paraguay	3.0
	Mauritius	5.5	66	Venezuela	2.9
32	Thailand	5.4	67	Nicaragua	2.7
33	India	5.2		Ethiopia	2.7
	Costa Rica	5.2	69	Bolivia	2.6
35	El Salvador	4.9	70	Bangladesh	2.2



Also, the reader will encounter countries that rank surprisingly high or low; some of these “special country cases” will be considered in greater detail later. Due to the fact that not all aspects of a country’s performance in property rights protection can be integrated into a single numeric value, there will always be imperfections and surprising outcomes. For example, especially in developing countries, the degree of informality and disregard of legal property rights is high and cannot perfectly but only, if at all, partly be captured in the data available. Nevertheless, in the course of the De Soto Fellowship Program, the parties involved will work on minimizing these imperfections in order to present the most accurate outcomes possible.

## IPRI Ranking

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Exhibit 4.1 presents the 2007 International Property Rights Index Ranking of the seventy economies included in the country set, which represent ninety-five percent of world GDP. Norway leads the country list with an 8.3 rating out of the maximum of 10. The second position is occupied by the Netherlands, followed by Denmark, Sweden, New Zealand, the United Kingdom, Germany, and Australia sharing the third rank. Switzerland and Austria are the two remaining countries in the top ten list of the IPRI. At the bottom end of the spectrum, the countries rated to have the weakest property rights protection are Ecuador with a rating of 3.3, Pakistan, Russia, Nigeria, Paraguay, Venezuela, Nicaragua, Ethiopia, Bolivia, and in last place – with a score of 2.2 – Bangladesh. The country set average of the IPRI is 5.3.

It is evident that none of the countries score below a 2.2 rating. Even more clear, however, is that no country has a ranking above 8.3. This fact illustrates that there is a significant gap to the strongest property rights protection based on the IPRI criteria – even for the top countries in the ranking. It is arguable if such a rating of 10 would be desirable for economies, or if the optimal PR protection lies below this point. Of course, the answer to this question depends on each country’s perception of “optimal” as well as on its objectives and intentions regarding its PR policies, and will thus not be discussed further in this report. Nevertheless, it is emphasized that, in the authors’ opinion, a rank in the higher quartiles of the IPRI is certainly more desirable than in the lower range. Additionally, the authors’ find that countries with ratings of six or lower should be considered as to be in urgent need of improvement of their fundamental property rights system. Certainly, these are subjective statements and readers are welcome to draw different conclusions. For reasons of neutrality country data in this report is presented in terms of performance by quartile as in Exhibit 4.2, which reproduces the final IPRI ratings.

Of the seventy countries numerically graded in the 2007 IPRI index, eighteen (18) belong to the strongest quartile of the country set, nineteen (19) to the 2<sup>nd</sup>, and seventeen (17) countries to the 3<sup>rd</sup> quartile. Sixteen (16) countries constitute the bottom twenty-five percent of the Index. As it could be hypothesized, the top quartile countries are principally Western industrialized countries, while the bottom twenty-five percent are generally countries from Africa and Latin America, with the addition of Russia and other Central European countries. The worst performing country, as mentioned before, is Bangladesh.

**Exhibit 4.2: IPRI Ranking by Quartile**

	Top 25 Percent	2nd Quartile	3rd Quartile	Bottom 25 Percent
strongest	Norway (rank 1)	France (rank 19)	Turkey (rank 38)	Peru (rank 55)
	Netherlands (rank 2)	Spain (rank 20)	Czech Republic (rank 39)	Honduras (rank 56)
	Denmark (rank 3)	South Africa (rank 21)	Panama (rank 39)	Romania (rank 56)
	Sweden (rank 3)	Portugal (rank 22)	Malawi (rank 41)	Ukraine (rank 58)
	New Zealand (rank 3)	Chile (rank 23)	Mexico (rank 42)	Kenya (rank 59)
	United Kingdom (rank 3)	Israel (rank 23)	Morocco (rank 42)	Guatemala (rank 59)
	Germany (rank 3)	Korea (rank 25)	Brazil (rank 42)	Ecuador (rank 59)
	Australia (rank 3)	Malaysia (rank 25)	Colombia (rank 45)	Pakistan (rank 59)
	Switzerland (rank 9)	Tunisia (rank 27)	China (rank 45)	Russia (rank 63)
	Austria (rank 9)	Italy (rank 27)	Philippines (rank 47)	Nigeria (rank 64)
	Finland (rank 11)	Greece (rank 29)	Indonesia (rank 47)	Paraguay (rank 65)
	Singapore (rank 12)	Hungary (rank 30)	Poland (rank 49)	Venezuela (rank 66)
	Japan (rank 13)	Mauritius (rank 30)	Dom. Republic (rank 49)	Nicaragua (rank 67)
	Ireland (rank 14)	Thailand (rank 32)	Argentina (rank 51)	Ethiopia (rank 68)
	Canada (rank 14)	India (rank 33)	Egypt (rank 51)	Bolivia (rank 69)
	United States (rank 14)	Costa Rica (rank 33)	Bulgaria (rank 51)	Bangladesh (rank 70)
	Hong Kong (rank 17)	El Salvador (rank 35)	Tanzania (rank 51)	
weakest	Belgium (rank 18)	Uruguay (rank 35)		
		Lithuania (rank 35)		

The color prism displayed in Exhibit 4.2 relates the quartiles to a specified color: blue for the top quartile, green for the 2<sup>nd</sup>, yellow/orange to the 3<sup>rd</sup>, and red for the bottom quartile. The split coloring additionally divides the corresponding quartile into a top fifty percent and lower fifty percent breakdown. Accordingly, the map on IPRI's distribution, displayed in the inside cover of this publication, indicates which country belongs to which quartile, and more specifically to which half within that quartile. For example, countries in dark blue correspond to the top fifty percent of the first quartile, and are therefore the top countries in the rating. Dark red nations, on the other hand, are countries of the lower half of IPRI's bottom quartile. The following sub-section discusses the results per individual Index component.

## Ranking by Index Category

Up to this point, a country's performance has been discussed according to its rank in the overall International Property Rights Index. In this section, we will explore in further detail similar country information but related to its performance in the Index's individual categories. Exhibit 4.3 presents summary statistics for the overall IPRI in addition to its categories.

### Exhibit 4.3: Summary Statistics

Indicator	Mean	Deviation	Minimum	Maximum
IPRI	5.3	1.8	2.2	8.3
LP	4.9	2.2	1.5	8.6
PPR	5.6	1.6	2.5	8.6
IPR	5.4	1.9	2.2	8.8

It is observable that the overall maximum rate is found in the Intellectual Property Rights (IPR) category, with Germany scoring 8.8. Its matching part at the lower end is a rank of 1.5, taken by Bangladesh in the Legal and Political Environment (LP) category. The highest mean is present in the Physical Property Rights (PPR) category (5.6).

Exhibit 4.4 more specifically identifies the top and bottom five countries of the IPRI and each of its three categories (the rank listed in parentheses refers to the country's position in the final IPRI ranking). New Zealand ranks first in Legal and Political Environment (LP), Norway in Physical PR (PPR) and Germany leads the Intellectual Property Rights (IPR) category.

A notable fact within the top performing countries is that Sweden, Norway, Finland and the UK are among the top five in two of the three sub-components, which makes a strong case for a well-functioning property rights protection in Northern European countries, especially Scandinavia. Yet, as a reminder, top line survey data will not reflect all components of private property rights and thus the overall IPRI rankings may not exhibit all necessary data. This would be the case for Scandinavian nations that traditionally function under socialized healthcare systems, which lack any establishment of individual property rights and ownership over healthcare in the system. This and other intricacies will be examined and integrated in future studies.

At the bottom end, Bangladesh is the weakest in Legal and Political Environment and Physical Property Rights, while Bolivia closes the Intellectual Property Rights range. Next to its overall weak ranking in the IPRI with a scaled score of 2.2, Bangladesh is among the bottom five in all of the Index's sub-components. Appendix I lists all country ratings of the IPRI and its categories. In the following, a select group of ranked countries will be examined closer in terms of their performance in the final IPRI ranking and in the individual component areas.

**Exhibit 4.4: Top 5 and Bottom 5 by Category**

	IPRI	LP	PPR	IPR
strongest	Norway (rank 1)	New Zealand (rank 3)	Norway (rank 1)	Germany (rank 3)
	Netherlands (rank 2)	Switzerland (rank 9)	Sweden (rank 3)	Finland (rank 11)
	Denmark (rank 3)	Norway (rank 1)	Netherlands (rank 2)	Austria (rank 9)
	Sweden (rank 3)	Denmark (rank 3)	United Kingdom (rank 3)	Australia (rank 3)
	New Zealand (rank 3)	Sweden (rank 3)	Finland (rank 11)	United Kingdom (rank 3)
weakest	Venezuela (rank 65)	Ecuador (rank 58)	Egypt (rank 50)	Bangladesh (rank 69)
	Nicaragua (rank 66)	Pakistan (rank 58)	Bolivia (rank 68)	Paraguay (rank 64)
	Ethiopia (rank 66)	Russia (rank 62)	Poland (rank 48)	Guatemala (rank 58)
	Bolivia (rank 68)	Venezuela (rank 65)	Nicaragua (rank 66)	Ethiopia (rank 66)
	Bangladesh (rank 69)	Bangladesh (rank 69)	Bangladesh (rank 69)	Bolivia (rank 68)

**Special Country Cases**

The authors selected nine special cases that show out-of-the-ordinary results or are of special interest to investigators in the field of property rights protection.

**Norway**

We begin with the top performer in the IPRI final ranking: Norway. When looking at the country's performance within the individual categories of the index, one discovers that Norway scores especially high in the Legal and Political Environment category (LP) as well as in the Physical Property component (PPR). In the former, Norway shares the categories second rank with Switzerland and Denmark, just behind New Zealand. The Scandinavian country performs well in the factors of judicial independence and the existence of corruption, with a score of 8.9 in both. Norway's political stability ranking is slightly lower at 7.4.

Within the PPR category Norway ranks first, with very high scores in the registering property factor (9.6) and the physical property rights protection factor (8.8). Considering access to loans, Norway received a score of 7.3. Norway's weakest performance is found in the area of intellectual property rights (IPR), where it occupies the 7<sup>th</sup> rank with a score of 7.9 (the maximum in this category is 8.8). However, this final rate is based only on two of the four variables included in the category. Due to lack of data, we only have outcomes that judge Norway on its performance in IPR protection and patent strength, but not on copyright piracy and trademark protection.

All in all, the data collected for the 2007 International Property Rights Index support Norway's first rank, given especially its top performance in legal and political aspects and physical property rights strength. Nevertheless, for the following indices more data must be found for Norway, particularly with respect to its stance and enforcement of intellectual property rights.

### **Bangladesh**

The nation that is perceived to be the weakest protector of property rights is Bangladesh. As mentioned prior, with a final score of only 2.2, Bangladesh is among the bottom five in all three of the IPRI categories. Bangladesh performs weakly in the LP category, with a 1.7 score in both corruption and political stability. Considering the independence of the judiciary it is perceived to perform slightly better, attaining a 2.5 rating. However, when judged on the confidence in the courts to uphold property rights, it scores zero, which lowers its LP category rank to the final position. Similarly, Bangladesh performs much weaker in the physical PR component. While it obtains a score of 4.7 for the PPR protection, Bangladesh is perceived to perform only on a level of 2.7 in access to loans and even worse for registering property (0.3). Compared to the former two categories, Bangladesh scores slightly better when it comes to intellectual property rights, but maintains a bleak average level of 2.7 out of 10. This is due to its weak performance in IPR protection (1.8) and the incidence of high copyright piracy in the country, which leads to a mark of 0.6. Bangladesh receives its maximum score of 5.6 in the area of patent strength.

It can be concluded that Bangladesh's overall poor performance is based on its weak protections in almost all factors of the IPRI, but is especially due to its absolute vulnerability in the protection and enforcement of a few core aspects.

### **India/China/Russia**

Currently, three countries of high interest to US investigators and global property rights observers are the rapidly emerging economies of China, India, and Russia. These three countries' standpoints with respect to physical and intellectual property rights are of increasing importance to the international community as it affects (agreements on) global trade and economic growth.

Of the three economies, India scored highest with the 33<sup>rd</sup> rank in the overall IPRI and a final rate of 5.2. In fact, India performs better in each of the Index's categories than China (rank 45) and Russia (rank 63). Based on the data, India is perceived to perform particularly well in judicial independence (8.2) and PPR protection (7.9). However, India does poorly in political stability (3.3), corruption (2.9) and copyright piracy (2.9).<sup>4</sup>

<sup>4</sup> The authors were surprised to observe India's rather unexpected "good" performance in the overall IPRI ranking and its relative position to China and Russia. As mentioned in the main text, this outcome is driven by India's high scores in the two factors named. Additionally, the reader is once more reminded that any score below six can be understood to stand for a country's weak performance with respect to property rights protection.

China, which ranks 45<sup>th</sup> with an IPRI score of 4.4, has a tremendously high level of copyright piracy (scores 0.1), which lowers its intellectual property rights component to 3.5. This is despite the relatively mediocre perception of its patent strength and trademark protection (5 and 5.3 respectively). In addition, China does relatively well in managers' opinion of courts to uphold their property rights (6.9) and business property registration (7.8). However, the reader must consider that most of IPRI's data sources do not cover rural areas, which should play a crucial role in the judgment on countries like China, India, and Russia. Overall, next to the high piracy level, the difficulty to access loans, the high level of corruption and the weak existence of judicial independence give China a low overall score on the IPRI.

With a final rating of 3.2, Russia scores only one point higher than the ranking's worst performer, occupying the 63<sup>rd</sup> place in the IPRI final ranking. Like China, Russia's economy is plagued by a very high level of copyright piracy (with a score of 0.9), in addition to a poorly performing legal and political environment. In not one of the factors included in the LP category does Russia obtain a score higher than 2.9, which propels it to one of the study's bottom five economies in this area.

The economies of these three countries experience a tremendously high level of copyright piracy covered by the factors included (not speaking of other types of pirated or counterfeited products that are not covered in this study), and thus an almost incomparable magnitude of informal market activity. India and China perform worst in the IPR factors, while Russia faces great deficiencies in its legal and political environment. Once again, it is important to note each country scores poorly in each of the three IPRI categories, as well as in the overall Index ranking.

### **Italy/Greece/Czech Republic/Poland**

Another set of countries brought to the authors' attention consists of two incumbent members of the European Union (EU) – Italy and Greece – and two other nations that joined the EU in 2004 – Czech Republic and Poland. The final rating and ranking of all four of these nations was unexpectedly low, so a closer inspection seems appropriate.

Italy obtains a score of 5.7, the 27<sup>th</sup> IPRI rank and therefore the highest position of the four countries considered. Recognizing that Italy (and therefore the remaining three countries as well) are on similar or lower levels to nations including Malaysia and Tunisia was quite surprising to the authors. Italy's weaknesses seem to lie in the perception of its legal and political system, where it obtains an average rank of only 4.9. However, Italy's performance in the PPR and IPR sections of the Index are mediocre, except for patent strength where it receives a score of 9.

The same holds true for Greece which performs slightly lower than Italy, occupying the 29<sup>th</sup> rank with a score of 5.6. Its performance in all variable areas provide it a score of 5.5 but its high level of copyright piracy stands out (2.7). Generally, an inferior performance of the Southern EU nations

compared to the North-Western EU members was expected beforehand. For example, Spain also ranks relatively poorly among the EU states but occupies the 19<sup>th</sup> place with a 6.5 score. As the only EU countries following Spain in the ranking, it was not anticipated that Italy and Greece would place as low in the overall ranking as they did.

The same conclusion holds for Czech Republic and Poland which are in the 39<sup>th</sup> and 49<sup>th</sup> positions respectively. Czech Republic's final IPRI rating is 4.7, stemming from the country's generally mediocre ratings and the dreadful outcome in managers' confidence in the court system to uphold property rights and access to loans, as well as registering property. Poland's score of only 4.0 out of 10 (the worst ranking of all the EU member states) is mainly due to its poor performance in the physical property rights category. For the whole IPRI country set, Poland is even found among the bottom five countries in the PPR area. All in all, Italy, Greece, as well as most Eastern European EU members, perform quite poorly in the IPRI rankings. In fact, their overall rankings are far worse than expected prior to the report's completion.<sup>5</sup>

Given the existence of additional interesting country cases, we would like to discuss more of the individual outcomes. In moving to the next section, we analyze the results found from a regional perspective. Future reports will provide more emphasis of individual country analysis.

## Regional Distribution of IPRI

As mentioned above, the countries rated in the IPRI were divided into nine regional segments: *North America* – which consists of the United States, Canada, and Mexico; *Latin America* – represented by Central and South America nations; *Western Europe* – which are the EU member states as of 2004 in addition to Norway and Switzerland; *Central and Eastern Europe (CEE)* – the new EU members as of May 2005, including the future members Bulgaria and Romania, as well as the applicant Turkey; *Russia* – which represents Russia and the Ukraine; *Middle East/North Africa* – corresponding to Egypt, Morocco, Israel, Tunisia; *Africa* – that includes seven countries in the Sub-Sahara region; *Asia* – with three countries from South Asia, four from East Asia, and five countries from Southeast Asia; and *Oceania* – Australia and New Zealand. A detailed list on the regional division can be found in Appendix III. To provide a more concise overview, all Asian regions are presented together with Oceania, as well as CEE and Russia, in the graphical demonstrations below.

Exhibit 4.5 shows the average performance in the IPRI rating and its components by region. Clearly, Western European countries on average outperform the other regions in the overall Index and also in each of the three categories. With ratings on average of one unit lower than Western Europe, North America holds the second rank in all indicators. The reader should note that this result would differ if Mexico, which ranks lower than the US and Canada in all categories, wasn't included in the regional sample.

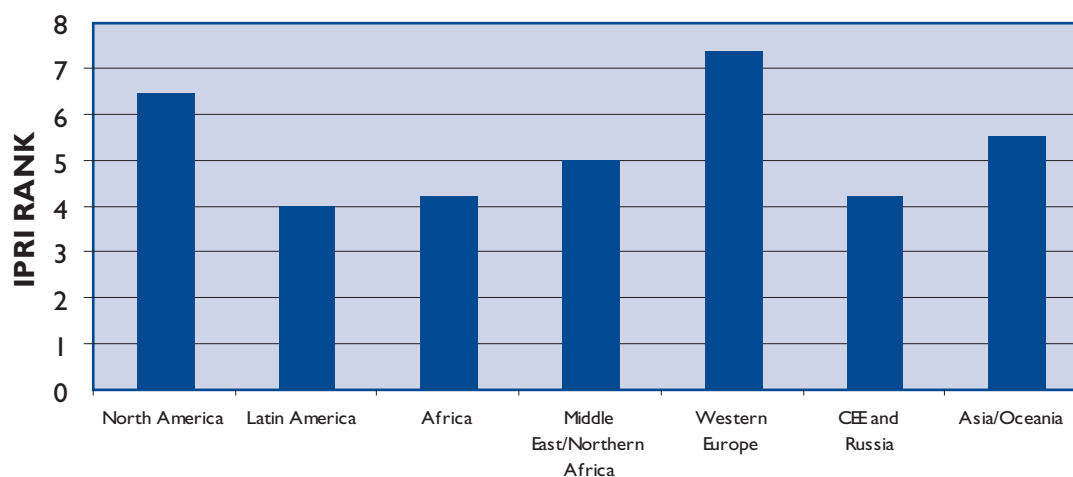
<sup>5</sup> The reader is again reminded that these outcomes are based on the first set of data sources and computation of the International Property Rights Index. As has been mentioned repeatedly, this first publication of the IPRI does not represent a complete measure of countries' property rights strength, which covers all aspects of the latter. Thus, any ratings and rankings in this publication should be interpreted with the current incompleteness in mind. More details on this matter can be found in Chapter VII.



**Exhibit 4.5: Average Performance Per Region and Indicator**

REGION	LP	PR	IPR	IPRI
All Countries	4.9	5.6	5.4	5.3
North America	6.1	6.5	6.7	6.4
Latin America	3.4	4.7	3.8	4.0
Africa	3.7	4.4	4.5	4.2
Middle East/Northern Africa	5.1	5.1	4.8	5.0
Western Europe	7.2	7.2	7.6	7.4
CEE and Russia	3.5	4.7	4.4	4.2
Asia/Oceania	5.3	6.2	5.5	5.7

The exhibit below graphically underlines the regional distribution of average performance in the overall IPRI rating. As mentioned, Western Europe and North America occupy the top two positions, followed by the combination of countries from Asia and Oceania. The fourth rank in average IPRI performance is taken by the Middle East/North Africa. Nations from Central and Eastern Europe, including Russia as well as Sub-Sahara Africa perform on average about equally at the lower range of the IPRI, only slightly undercut by Latin American countries positioned at the bottom.

**Exhibit 4.6: Average Performance of IPRI by Region****IPRI AVERAGE PERFORMANCE BY REGION**



For the Index's categories of Legal and Political Environment and Physical and Intellectual Property Rights, an analogous regional performance pattern exists. Due to this similarity, the corresponding graphs are not displayed here but can be obtained upon request from the authors. The next section stresses the importance of strong property rights and the positive relationship with economic well-being.

### IPRI and Economic Well-Being

The relation of effective property rights protection to economic performance is certainly of high interest to countries and policy makers. Before looking at the particulars of the relationship between countries' IPRI rating and their economic details, Exhibit 4.7 illustrates that on average countries with stronger property rights tend to have higher per capita incomes than nations with weaker property protection.

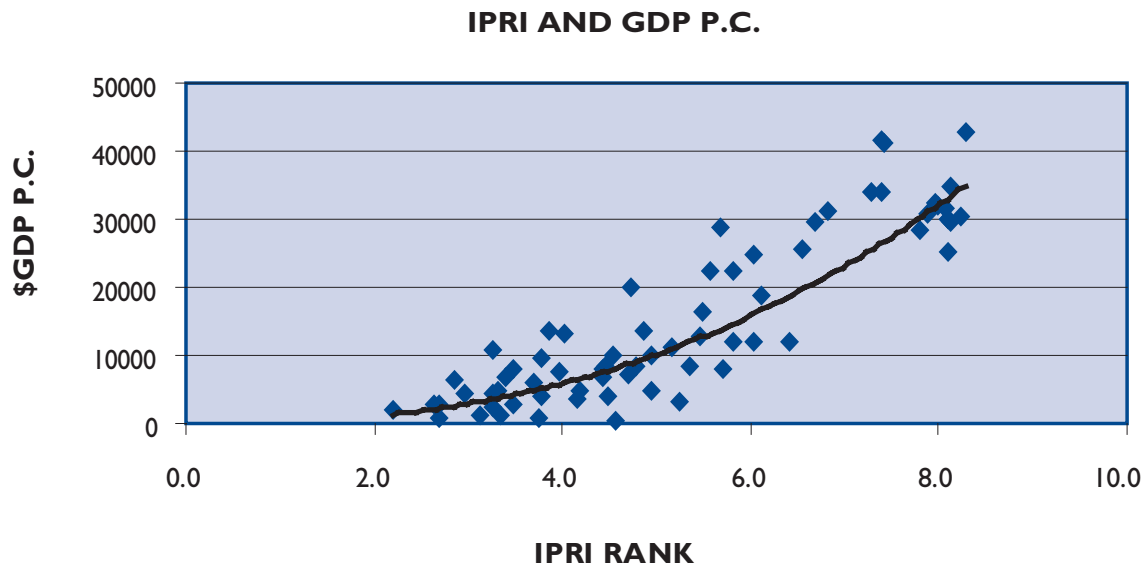
#### Exhibit 4.7: Average Income Per Quartile

IPRI QUARTILES	AV. GDP P.C.
Top 25 Percent	\$32,994
2nd Quartile	\$15,679
3rd Quartile	\$7,665
Bottom 25 Percent	\$4,294

In fact, citizens of countries in the top quartile in the IPRI ranking enjoy a per capita income that is more than seven times that of their counterparts in the bottom quartile. Essentially, for the whole IPRI country set a positive relation between the level in the IPRI rank and GDP per capita can be found, as demonstrated in Exhibit 4.8.<sup>6</sup>

The positively sloped trend line indicates that countries with stronger property rights protection enjoy a higher per capita income than countries at the lower end of the IPRI rating. Nevertheless, it must be emphasized that this is only an observable *trend*, not an unambiguously proven causality. However, the correlation between the IPRI rating and GDP per capita amounts to a value of eighty-nine percent.

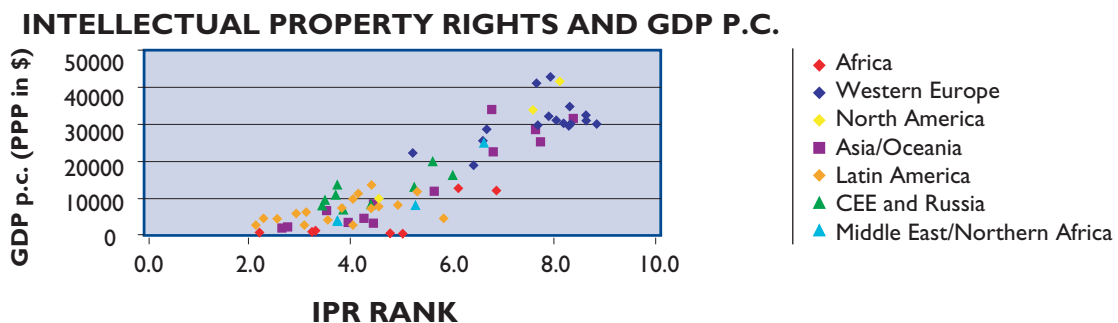
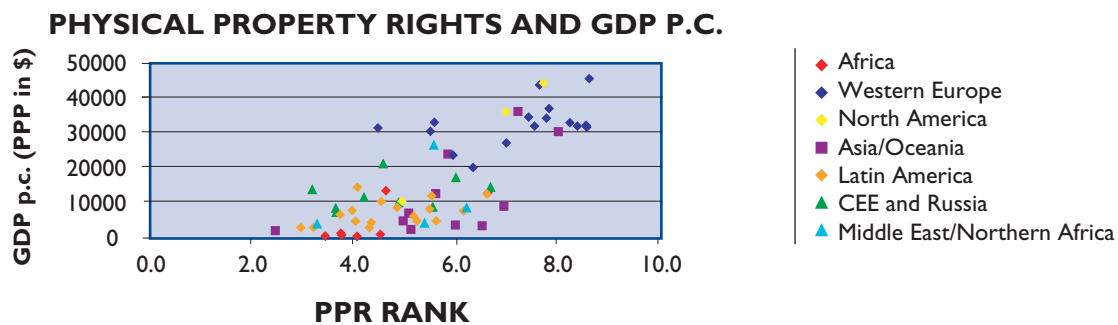
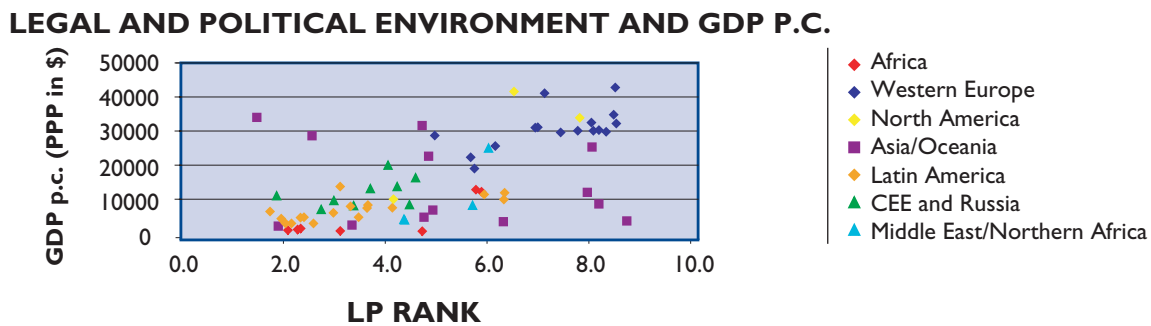
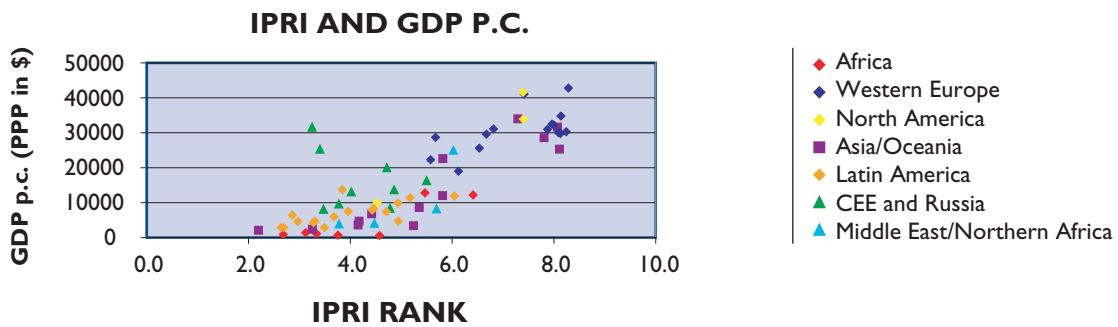
<sup>6</sup> GDP per capita is measured in Purchasing Power Parity (PPP) rated US dollars and stems from the CIA factbook.

**Exhibit 4.8: Relation Between IPRI and GDP Per Capita (with Trendline)**

The positive relationship described holds not only for the overall Index but for the individual categories of the IPRI (see Exhibit 4.9). Therefore, countries with a sophisticated legal and political system and stronger physical and/or intellectual PR protection benefit from higher economic well-being, respectively.

To see whether the positive relationship also exists between property rights protection and per capita income on a regional basis, we colored the countries set according to the regional division. Exhibit 4.9 presents the colored graphs for the IPRI and all of its components in relation to GDP per capita. The distribution makes clear that in most occasions also within a regional basis positive trend between one of the IPRI's areas and GDP per capita exists. For example, within Western Europe (dark blue dots), a country that has strong physical property rights protection has a higher income per capita than a country of the same regional group with lower PPR protection. All in all, a positive correlation between a country's performance in areas related to property rights protection and economic well-being is observable and should be kept in mind by policy makers and government officials when making decisions regarding the establishment and implementation of private property rights.

### Exhibit 4.9: Relation Between IPRI and GDP Per Capita by Region



This chapter provided the reader with the International Property Rights Index's outcomes regarding the protection of private property in various countries of the world. Based on these results, it can be stated that countries with strong property rights protection are a) generally advanced industrialized countries, particularly Western Europe (Scandinavia) and North America, b) still notably far from obtaining a perfect score within the IPRI rating, and c) enjoy on average a GDP per capita income of more than eight times higher than their counterparts at the lowest quartile of the Index. Also, the overall positive relationship between a high rank in the IPRI and economic well-being in the form of GDP per capita was underlined.

The following chapter presents an extended version of the IPRI, taking into account countries' performance in an additional area related to property rights protection: the degree of gender equality with respect to private property.

## CHAPTER V: IPRI AND GENDER EQUALITY

During the development phase of the International Property Rights Index, several academics and experts in this field emphasized the importance of gender equality with regard to property for such a measure. As women play a crucial role in society and economy, and their access to property rights matter for both, we decided to appropriately account for a component covering gender equality.

### The Concept

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Women's rights, with regard to property, are regularly taken for granted in industrialized countries but are often non-existent in countries of the developing world (both in practice and now and again in written statute). To account for the aspect of gender equality, PRA integrated an idea to extend the "basic" IPRI with a measure of gender equality (GE) concerning property rights. The general formula of this "new" IPRI that considers gender aspects, subsequently called IPRI(GE), is the following:

$$\text{IPRI(GE)} = \text{IPRI} + 0.2 * \text{GE}$$

The weight of 0.2 for the gender equality measure was chosen arbitrarily by the authors and the reader is invited to change this weight according to his/her preference (reasoning explained further in the *Results and Comparison* section below). The construction of the GE measure is based on the five factors displayed in Exhibit 5.1.

#### Exhibit 5.1: Structure of the Gender Equality Measure (GE)

- Women's Access to Land
- Women's Access to Property Other Than Land
- Women's Access to Bank Loans
- Property Inheritance Rules
- Women's Social Rights

In the following sections, these factors and the manner by which the GE measure was constructed will be discussed in greater detail.

## **The Factors**

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As we sought data for the GE measure, the authors encountered several options for general gender equality. However, in order to avoid dilution and focus on the essentials, only factors directly related to women's rights AND property were included.

### **Women's Access to Land / Property Other Than Land / Bank Loans**

These three variables are integrated in the GE measure as they indicate the quality of women's ownership rights with respect to three aspects: women's access to bank loans, their right to acquire and own land, and the right to own property other than land. The rating on these factors indicates the extent of restrictions or the size of the female population for which the restrictions are relevant. However, some restrictions may only be relevant for a woman in a specific stage of her life (e.g. married women). **Source:** *OECD Gender, Institutions and Development Data Base (GID)*.

### **Property Inheritance Rules**

This factor embraces inheritance practices, ranking countries on the degree to which regulation is preferenced in favor of male heirs. In other words, this variable indicates to which extent bequests are equally shared between male and female offspring. **Source:** *OECD Gender, Institutions and Development Data Base (GID)*.

### **Women's Social Rights**

Women's Social Rights is the only variable that covers broader aspects of women's equality. Derived from the non-controversial Cingranelli-Richards Human Rights Data set, it judges countries on the equality of women's rights with respect to the right to own, acquire, manage, and retain property brought into marriage. **Source:** *Cingranelli-Richards (CIRI) Human Rights Data Set*.

**Exhibit 5.2: Summary IPRI (GE) Ranking**

Rank	Country	IPRI (GE) Rank (0= <i>weakest</i> , 12= <i>strongest</i> )	Rank	Country	IPRI (GE) Rank (0= <i>weakest</i> , 12= <i>strongest</i> )
1	Norway	10.2	34	Panama	6.6
2	Denmark	10.1	35	Mexico	6.4
	Sweden	10.1	36	Brazil	6.3
	Netherlands	10.1		Turkey	6.3
	New Zealand	10.1	38	Colombia	6.2
	Germany	10.1	39	China	6.1
7	Austria	10.0		India	6.1
	United Kingdom	10.0	41	Philippines	5.9
	Australia	10.0	42	Argentina	5.8
10	Finland	9.9		Poland	5.8
11	Switzerland	9.6	44	Morocco	5.7
12	Ireland	9.4		Dominican Republic	5.7
	Japan	9.4	46	Bulgaria	5.6
	Canada	9.4	47	Malawi	5.5
15	United States	9.3	48	Indonesia	5.4
16	Belgium	8.8	49	Peru	5.3
17	France	8.5		Ukraine	5.3
18	Spain	8.4	51	Romania	5.2
19	Chile	7.9	52	Egypt	5.0
	Portugal	7.9		Honduras	5.0
21	Korea (South)	7.6	54	Russia	4.9
22	Italy	7.5		Ecuador	4.9
23	Hungary	7.4	56	Paraguay	4.8
24	Mauritius	7.3	57	Venezuela	4.7
	Israel	7.3	58	Nicaragua	4.4
26	Thailand	7.2	59	Bolivia	4.1
	Malaysia	7.2	60	Tanzania	3.9
28	Costa Rica	7.0	61	Ethiopia	3.7
	South Africa	7.0		Kenya	3.7
30	Tunisia	6.9		Pakistan	3.7
31	Uruguay	6.8	64	Nigeria	3.6
32	Czech Republic	6.7	65	Bangladesh	2.9
	El Salvador	6.7			

## Methodology

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The methodology of the GE measure is identical to the one used to construct the IPRI. Thus, the final GE measure is also an index based on the average of equally weighted factors, which ranges on a scale from 0 to 10. Thus, a score of 0 signifies complete discrimination against women, while a 10 is given to countries with fully developed equal rights of ownership. Given that all the factors' basic data sets were constructed as indices, we simply normalized the data to the 0-10 scale.

Consequently, for the final IPRI (GE) ranking, a 0-12 scale is utilized due to the 0.2 weighting for gender equality.

## Results and Comparison

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Exhibit 5.2 presents the results of the extended IPRI integrating the gender equality (GE) factors. The reader will notice that results are reported for only sixty-five countries instead of the seventy countries included in the IPRI ranking. This is due to a lack of sufficient data on gender equality for countries including Greece, Guatemala, Hong Kong, Lithuania, and Singapore.

When observing the final IPRI (GE) ranking, one will notice that a pattern similar to the outcomes of the "basic" IPRI ranking persists. Of course, this is due to the relatively low weight of 0.2 given to the gender equality measure. However, also with a weight of 0.3 the results would change only slightly. Evidently, again none of the countries reach the maximum scale of 12 or the minimum of 0. Norway remains the top performer of the country set, followed by other Scandinavian and Western European countries. Also at the lower end of the scaling, the rankings stay almost unchanged, with Bangladesh still occupying the final position within the listing. The countries preceding Bangladesh are the same nations that can be found in the bottom ten of the general IPRI.

However, some nations do improve or aggravate their positions by a number of ranks. South Africa, for example, falls from its former 21<sup>st</sup> position in the IPRI to position 28, gaining very little points when it comes to women's rights and property. The same holds for Tanzania and Malawi, which fall by nine ranks to position 60 and by six places to number 47, respectively. Also India worsens by six places, approaching China which unexpectedly does well on the GE measure ranking (see Appendix IV). Other countries that gain from the inclusion of the gender equality measure are, among others, Italy, Hungary, Czech Republic, Costa Rica, Hungary, and Mauritius, but surprisingly also countries like Venezuela, Nicaragua, and Bolivia.

All in all, the main results and general geographical distribution of the IPRI final ratings and ranking remain almost unchanged in the extended IPRI (GE). Also, the latter's correlation with respect to economic well-being still remains positive with ninety percent.

The following chapter presents information on the data sources that have been utilized to build the IPRI and the IPRI (GE) measures.



## CHAPTER VI: DATA SOURCES

This chapter covers the range of data sources that were used for the construction of the IPRI and the IPRI (GE) measures. After a short review of the nature of the data included in the indices, each data source and its data collection methodology will be presented in brief.

### Subjective Versus Objective Data

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The majority of data included in the IPRI stems from expert survey responses. However, some factors also reflect “hard” data based on the countries’ regulations and laws. Readers of the IPRI might wonder why the Index consists of such a mix of objective and subjective data.

First, objective data that reflects a country’s strength in property rights protection is almost impossible to obtain, so that there are few alternatives to relying on subjective data collection. Second, rather than merely summarizing a country’s *de jure* facts regarding property rights protection, IPRI aims at also capturing the *de facto* outcomes and effectiveness of the prevailing property rights system. Perceptions-based measures often contain information that is not reflected by objective indicators, particularly in developing countries. In fact, this year’s research has focused mainly on the latter intention, and therefore integrates a large amount of data stemming from the experience and perceptions of experts in the field. In future research for the Index, we will increasingly work on balancing the amount of statistically subjective and objective data, depending on their quality, comparability, and reliability.

### Data Sources

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In the following, the ten different data sources used in the construction of the 2007 IPRI and IPRI (GE) will be presented. Next to explaining in brief the methodology behind the data collection (usually obtained from the sources themselves), reference to where the data can be obtained will be provided as well. The sources are presented in order of the factor list presented in Exhibits 3.1 and 5.1.

#### **World Economic Forum (WEF) – Global Competitiveness Index (GCI):**

World Economic Forum’s Global Competitiveness Index supplies information regarding an economy’s competitiveness for a large set of countries (125 in 2006). The rankings are drawn from a combination of publicly available hard data and the results of the Executive Opinion Survey. The latter is a comprehensive survey conducted on an annual basis by the World Economic Forum, together with its network of partner institutes (leading research institutes and business organizations) in the countries covered by the report.

There are four variables in the IPRI Ranking for which data had been obtained from the 2006 WEF Global Competitiveness Index: "Judicial Independence", "Physical Property Rights Protection", "Intellectual Property Rights Protection", and "Access to Loans". The respective questions that survey participants were asked to answer are displayed in Appendix II. For more detailed information on the Global Competitiveness Index, visit [www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm](http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm).

**World Bank Group (WB) – World Development Indicators (WDI)**

The World Development Indicators compile statistics to provide an annual snapshot of the progress in the developing world and the challenges that remain. It is the product of intensive collaboration with numerous international organizations, government agencies, and private and nongovernmental organizations. The indicators are obtained from numerous levels, starting with censuses and household surveys. Nongovernmental organizations (NGO) and the private sector also make important contributions, both in gathering primary data and in organizing and publishing their results.

One variable displayed in the 2006 WDI data set was utilized for the IPRI "Confidence in Courts" variable, which reflects managers' views on their country's courts system to uphold private property rights. WDI obtained this data from the responses to the World Bank's Investment Climate Surveys. For more information on the WDI data, see [devdata.worldbank.org/wdi2006/contents/home.htm](http://devdata.worldbank.org/wdi2006/contents/home.htm).

**World Bank Institute (WBI) - Worldwide Governance Indicators (WGI):**

The Worldwide Governance Indicators stem from the World Bank Institute and draw on the most recent data available on an annual basis. For example, the data for IPRI's Political Stability factor are based on information as of the year 2005. The WGI indicators reflect the perceptions on governance of a very diverse group of respondents: hundreds of variables are drawn from more than fifty sources and organizations. Several of the data sources are surveys of individuals or domestic firms with first-hand knowledge of the governance situation in the country. But WBI also captures the perceptions of country analysts at the major multilateral development agencies, reflecting these individuals' in-depth experience working on the countries they assess. Other data sources from NGOs, as well as commercial risk rating agencies, base their assessments on a global network of correspondents typically living in the country they are rating. For more information, visit [info.worldbank.org/governance/kkz2005/tables.asp](http://info.worldbank.org/governance/kkz2005/tables.asp).

**Transparency International (TI) – Corruption Perceptions Index (CPI):**

Transparency International is a civil society organization with a global network, including more than ninety locally established national chapters throughout the world. TI annually publishes an index that ranks countries by their perceived levels of corruption in the public sector, as determined by expert assessments and opinion surveys. The CPI draws on eighteen different polls and surveys from twelve independent institutions. Since fundamental changes in the levels of corruption in a country evolve only slowly, TI opted to base the CPI on a three-year rolling average. The CPI 2005, which has been used for the 2007 IRPI, is thus based on surveys provided between 2003 and 2005. Surveys are carried out among businesspeople and country analysts, including surveys of residents of countries. Thus, CPI gathers perceptions that are broadly based, not biased by cultural

preconditions, and not only generated by US and European experts. To read more about the source of the IPRI's "Corruption" variable, visit [www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi).

### **World Bank Group (WB) – Doing Business (DB):**

The source of the "Registering Property" variable included in the PPR area of the IPRI is the World Bank Groups' Doing Business Report 2007. The Doing Business data are collected in a standardized way on an annual basis. To start, the Doing Business team, with academic advisers, designs a survey. The survey uses a simple business case to ensure comparability across countries and over time – with assumptions about the legal form of the business, its size, its location and the nature of its operations. Surveys are administered through more than 5,000 local experts, including lawyers, business consultants, accountants, government officials and other professionals routinely administering or advising on legal and regulatory requirements. To read more on the methodology of the DB data, visit [www.doingbusiness.org](http://www.doingbusiness.org).

### **Ginatre-Park (GP) - Index of Patent Rights (IP)**

The data reflecting the strength of the patent rights protection in the IPRI are based on the Ginatre-Park Index of 2000, which is the latest available index as of the date of this publication. However, as patent law slowly changes the Index is published about every five years, and the 2000 data are assumed to reflect well the current status of patent rights protection. The IP is based on "macro" legal features (and not on micro-level data) and incorporates a subset of legal features in existence. The information used to construct the Index is obtained directly from national patent laws and contains five categories: the extent of coverage, membership in international patent agreements, provisions for loss of protection, enforcement mechanisms, and the duration of protection. For a more extensive explanation on the methodology or to obtain the IP data set, the reader is invited to contact the authors directly.

### **United States Trade Representative (USTR) – 301 Watch list**

The data used for the construction of the "Copyright Piracy" factor stem from the 2006 USTR 301 Watch List, which every year is published in detail on the website of the International Intellectual Property Alliance (IIPA). The data that has been used for the IPRI reflect the level of piracy in the business software, entertainment software, motion pictures, records & music industries. Representative institutions of the individual industries estimate their data in different ways (e.g. the Business Software Alliance calculation method compares two sets of data: the number of new software units installed and the legal supply of new software units. The data on entertainment software, on the other hand, is estimated with the help of local surveys in addition to other hard data). It is sensible to assume that the piracy levels reported are actually underestimated as they only capture piracy experienced by the US copyright-based industries. To read more about the piracy level data, one can refer to IIPA's website [www.iipa.com/statistics.html](http://www.iipa.com/statistics.html).

### **International Trademark Association (INTA) – Trademark Protection Variable (TPV)**

The country information on trademark protection provided by IPRI's results reflects the outcomes of INTA's Trademark Protection Variable. The data for this variable are obtained from the responses of the

Trademark Protection Survey that was sent to 230 INTA members with knowledge of the level of trademark protection. The survey consists of 13 questions covering registration, maintenance, and enforcement of trademark rights. The limitations of this only numeric source that had been found for trademark protection on an international scale are the following: first, the year of publication of the TPV is 1998 and can thus only be seen as proxy for the countries' current level of trademark protection; second, information on trademark protection is only available for 40 countries in the INTA study. Thus, future investigation will make an effort to find an alternative source for country information regarding trademark protection. To read the study incorporating the "Trademark Protection" variable, visit [www.brandenforcement.co.uk/download.cfm?type=document&document=13](http://www.brandenforcement.co.uk/download.cfm?type=document&document=13).

**Organisation for Economic Co-operation and Development (OECD) - Gender, Institutions and Development Data Base (GID)**

The OECD Gender, Institutions, and Development Data Base (GID) is one of the two data sources that had been used for the construction of the extended IPRI which incorporates aspects of gender equality (GE). The GID represents a tool for researchers and policy makers to determine and analyze obstacles to women's economic development. It covers a total of 162 countries and comprises an array of fifty indicators on gender discrimination. The four GID variables, which are incorporated in the "Gender Equality" measure of this study, are related to women's ownership rights with respect to land, property other than land, and bank loans. Also, GID provided information on the inheritance practices factor in the GE measure. These data have been compiled from various sources like BRIDGE, the Asian Development Bank, the Canadian International Development Agency, Lang (1998), and AFROL. For more information on the data, visit [www.oecd.org/dev/institutions/GIDdatabase](http://www.oecd.org/dev/institutions/GIDdatabase).

**Cingranelli-Richards (CIRI) - Human Rights Data Set**

The 2004 Cingranelli and Richards (CIRI) Human Rights Dataset is the second data source of the Gender Equality information, used for the Women's Social Rights factor. It contains standards-based quantitative information on government respect for a wide range of internationally-recognized human rights for 195 countries of all regime-types and from all regions of the world. The data set contains measures of government human rights practices, not human rights policies or overall human rights conditions (which may be affected by non-state actors) and is updated every year. The primary source of information about human rights practices is obtained from a careful reading of the annual United States Department of State's Country Reports on Human Rights Practices. Coders are instructed to use this source for all variables. To obtain the CIRI data set, go to [www.humanrightsdata.org](http://www.humanrightsdata.org).

For inquiries concerning the data sources used in the construction of the IPRI and IPRI (GE) measures regarding specifically the 2007 IPRI Report and its results, visit [www.InternationalPropertyRightsIndex.org](http://www.InternationalPropertyRightsIndex.org). Otherwise, please refer to the respective source.

In the following, Chapter VII discusses additional notes regarding the limitations of the 2007 IPRI Report and completes the study by presenting the future plans of the Hernando de Soto Fellowship Program.

## CHAPTER VII: ADDITIONAL NOTES

The previous chapters have already pointed out to the reader that several considerations should be kept in mind when studying this report: First, the 2007 publication of the International Property Rights Index (IPRI) is the first attempt to launch a gauge that ranks countries according to their strength and effectiveness in property rights protection on an international scale. Related to that, the presented computations and the resulting outcomes are based on a limited research period of four months, which the 2006 Hernando de Soto Fellow primarily dedicated to the basic conceptualization and data search for the IPRI. Thus, the authors are aware of the 2007 IPRI's limitations with respect to detail, data scope, and country coverage. Nevertheless, readers are reminded that the accomplishments and findings of the first De Soto Fellowship serve as the foundation and source for the continuing development of the IPRI by future research Fellows.

Second, during the construction of the IPRI data base the authors encountered problems with respect to identifying reliable international numeric data related to property rights protection. This considerable constraint of resources consequently led to the current limitations of the 2007 IPRI, in the sense that not all aspects of property rights protection are covered. Certainly, an index's perfect coverage of a wide-ranging topic like private property rights protection is almost impossible. However, the 2007 version of the IPRI is certainly extendable with regard to two things, which will be of concern in the future: most importantly a) to add new variables related to supplementary PR aspects of the current IPRI factor set, and b) to improve the quality of the current factors by finding more recent or adequate data sources.

Regarding a), as mentioned before it would make sense for the future De Soto fellows to integrate more "hard" *de jure* facts, like a measure that indicates the strength of a country's constitutional laws behind private property protection. Also, it will be of particular importance to extend the data set of the currently relatively restricted physical property right category, for example with data on the country's judicial standpoint on expropriation and just compensation for property takings.

Additionally, in the course of the expansion of the concept behind IPRI it will be necessary to identify what other aspects of property rights are of interest and feasibility to be integrated in the Index. For instance, can and will a country's policy (and its effects on property owners) on environmentally protected areas, intangible property rights, regulations concerning e.g. endangered species, actual PR protection in rural areas, or even cultural aspects like "family heritage", religious leaders' role in property rights issues compared to the states' role, or communal property rights, be considered in this study? When considering this question, one will encounter at least two main problems, which have been mentioned earlier: First, it would be hard to find data for a large set of countries, and second, it would be even more difficult to compare countries with respect to these highly idiosyncratic characteristics and express these by a single numeric value. Given these constraints, the future work of the De Soto Fellows should focus on the inclusion of feasible core factors in the IPRI and the introduction of a number of in-depth studies of selected countries.

When one considers the improvement on the quality of IPRI's current data, challenge b), one needs to look at the existing limitations. To mention a few, the 2007 IPRI data set consists of certain data that are

based on certain assumptions in order to make countries comparable to each other (e.g. the “Registering Property” factor applies only to a defined type of enterprise in defined areas of a country). Or, some factors only partially capture the actual information we would like to obtain; for example, in the PPR category the “Access to Loans” variable reflects not only data on mortgage credits but also incorporates consumption loans, while the IPR category has no data regarding IP rights of pharmaceuticals and other IP-related products. Also, as mentioned before, some data stem from older years, so that there is a need to replace some of the current IPRI data sources with ones that provide information on a more continuous basis and/or better quality.

Third, the 2007 IPRI data set is a combination of diverse sources with different methodologies. Given the authors’ goal of providing a simple and transparent Index, in addition to the short time of investigation, the 2007 IPRI is based on the simple average rating described in Chapter III. In the future, the De Soto Fellows could become involved in more sophisticated construction of the Index, e.g. using factor analysis to better integrate the diverse data resources, if valuable to the overall outcomes. Regarding the data sources, the current factors contain a certain bias towards “subjective” data, stemming from survey responses. As mentioned before, the future editions of the Index will increasingly work on balancing subjective and objective data sources subject to quality and reliability.

The latter intention is related to the fourth and final difficulty: the data used for the construction of the 2007 IPRI have been generated exclusively from third-party sources, and was thus not specifically suited to our investigation’s needs. Therefore, the plan is to eventually construct our own De Soto Fellowship Survey which will be sent to Property Rights Alliance’s existing and future partner organizations around the world in order to attain important country information.

Given the limitations of the 2007 International Property Rights Index, the future work of the Hernando de Soto Fellowship Program will, as suggested, focus on ultimately overcoming these constraints and thereby constantly improving the quality of the Index. Given the continuous character of the program and the annual publication of the IPRI, we hope to attain significant improvement and extension in the following years. As mentioned, PRA will continue to work in conjunction with third-party advocacy organizations, think tanks and business organizations to accomplish this goal.



## APPENDIX I: IPRI 2007–COUNTRY OVERVIEW

Country	IPRI	LP	PPR	IPR	Country	IPRI	LP	PPR	IPR
Argentina (rank 51)	3.8	3.1	4.1	4.4	Korea (South) (rank 25)	5.8	4.9	5.8	6.8
Australia (rank 3)	8.1	8.1	7.8	8.3	Lithuania (rank 35)	4.9	4.2	6.7	3.7
Austria (rank 9)	8.0	7.9	7.4	8.6	Malawi (rank 41)	4.6	4.7	4.0	5.0
Bangladesh (rank 70)	2.2	1.5	2.5	2.7	Malaysia (rank 25)	5.8	6.2	5.6	5.6
Belgium (rank 18)	6.8	6.9	5.6	8.0	Mauritius (rank 30)	5.5	5.7	4.6	6.1
Bolivia (rank 69)	2.6	2.6	3.2	2.2	Mexico (rank 42)	4.5	4.1	4.9	4.5
Brazil (rank 42)	4.5	3.6	4.8	4.9	Morocco (rank 42)	4.5	4.3	5.4	3.7
Bulgaria (rank 51)	3.8	3.0	4.9	3.5	Netherlands (rank 2)	8.2	8.1	8.5	8.1
Canada (rank 14)	7.4	7.7	7.0	7.5	New Zealand (rank 3)	8.1	8.6	8.0	7.7
Chile (rank 23)	6.0	6.3	6.6	5.3	Nicaragua (rank 67)	2.7	2.0	2.9	3.1
China (rank 45)	4.4	4.7	5.1	3.5	Nigeria (rank 64)	3.1	2.3	3.7	3.3
Colombia (rank 45)	4.4	3.3	5.5	4.5	Norway (rank 1)	8.3	8.4	8.6	7.9
Costa Rica (rank 33)	5.2	5.9	5.5	4.1	Pakistan (rank 59)	3.3	1.9	5.1	2.8
Czech Republic (rank 39)	4.7	4.0	4.6	5.6	Panama (rank 39)	4.7	3.6	6.1	4.4
Denmark (rank 3)	8.1	8.4	7.8	8.2	Paraguay (rank 65)	3.0	2.3	4.0	2.6
Dominican Republic (rank 49)	4.0	4.1	4.0	3.8	Peru (rank 55)	3.7	2.9	5.2	2.9
Ecuador (rank 59)	3.3	1.9	4.3	3.6	Philippines (rank 47)	4.2	3.3	5.0	4.3
Egypt (rank 51)	3.8	4.3	3.3	3.7	Poland (rank 49)	4.0	3.7	3.2	5.2
El Salvador (rank 35)	4.9	3.4	5.6	5.8	Portugal (rank 22)	6.1	5.7	6.3	6.4
Ethiopia (rank 67)	2.7	2.1	3.7	2.2	Romania (rank 56)	3.5	3.3	3.6	3.4
Finland (rank 11)	7.9	6.9	8.2	8.6	Russia (rank 63)	3.2	1.9	4.2	3.7
France (rank 19)	6.7	7.3	4.5	8.2	Singapore (rank 12)	7.8	7.9	8.0	7.6
Germany (rank 3)	8.1	8.0	7.5	8.8	South Africa (rank 21)	6.4	5.8	6.6	6.8
Greece (rank 29)	5.6	5.6	5.9	5.2	Spain (rank 20)	6.5	6.1	7.0	6.6
Guatemala (rank 59)	3.3	2.4	5.2	2.3	Sweden (rank 3)	8.1	8.2	8.5	7.6
Honduras (rank 56)	3.5	2.1	4.3	4.0	Switzerland (rank 9)	8.0	8.4	7.8	7.8
Hong Kong (rank 17)	7.3	7.9	7.2	6.7	Tanzania (rank 51)	3.8	3.1	3.4	4.8
Hungary (rank 30)	5.5	4.5	6.0	6.0	Thailand (rank 32)	5.4	4.7	6.9	4.4
India (rank 33)	5.2	4.8	6.5	4.4	Tunisia (rank 27)	5.7	5.6	6.2	5.3
Indonesia (rank 47)	4.2	2.5	6.0	4.0	Turkey (rank 38)	4.8	4.4	5.5	4.4
Ireland (rank 14)	7.4	7.0	7.6	7.6	Ukraine (rank 58)	3.4	2.7	3.6	3.9
Israel (rank 23)	6.0	5.9	5.5	6.6	United Kingdom (rank 3)	8.1	7.7	8.4	8.3
Italy (rank 27)	5.7	4.9	5.5	6.6	United States (rank 14)	7.4	6.4	7.7	8.0
Japan (rank 13)	7.5	7.3	7.0	8.2	Uruguay (rank 35)	4.9	6.2	4.5	4.0
Kenya (rank 59)	3.3	2.3	4.5	3.2	Venezuela (rank 66)	2.9	1.7	3.7	3.1





## APPENDIX II: DETAILED METHODOLOGY AND DATA SOURCE INFORMATION

### Legal and Political Environment

Variable Name in Corresponding Database	Original Scale	Rescaling Method used for IPRI	Year	Number of Countries Included in Original Database	Source	More Detailed Information About Source
Judiciary Independence	1=no, heavily influenced: 7=yes, entirely independent	The original data was rescaled to a scale of 0 - 10	2006	125	World Economic Forum— Global Competitiveness Report <a href="http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm">http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm</a>	The ranking reflects experts' answers to the survey question: "Is the judiciary in your country independent from political influence of members of government, citizens or firms?"
Confidence in Courts to uphold Property Rights	%	The standardization formula used to calculate the zero-to-10 ratings for this component was: $(V_{max} - V_i) / (V_{max} - V_{min})$ multiplied by 10. The values for $V_{max}$ and $V_{min}$ were set 1 standard deviation above average and 0, respectively.	2002 - 2005	63	The World Bank Group— World Development Indicators (Table 5.2) <a href="http://devdata.worldbank.org/wdi2006/contents/home.htm">http://devdata.worldbank.org/wdi2006/contents/home.htm</a>	Data on the WDI's investment climate are from the World Bank's Investment Climate Surveys ( <a href="http://iresearch.worldbank.org/ics">http://iresearch.worldbank.org/ics</a> ). This variable measures the share of managers who do not agree with the statement: "I am confident that the judicial system will enforce my contractual and property rights in business disputes."
Political Stability	-2.5(worst) - 2.5(best)	The original data was rescaled to a scale of 0 - 10	2005	213	World Bank Institute— Worldwide Governance Indicators <a href="http://info.worldbank.org/governance/kkz2005/tables.asp">http://info.worldbank.org/governance/kkz2005/tables.asp</a>	Combines several indicators which measure perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism.
Corruption Perceptions Index	0(worst)-10(best)	No rescaling necessary	2005	159	Transparency International— Corruption Perceptions Index <a href="http://www.transparency.org/policy_research/surveys_indices/cpi">http://www.transparency.org/policy_research/surveys_indices/cpi</a>	The Transparency International Corruption Perceptions Index ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians. It is a composite index, a poll of polls, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions.

## APPENDIX II: DETAILED METHODOLOGY AND DATA SOURCE INFORMATION

### Physical Property

Variable Name in Corresponding Database	Original Scale	Rescaling Method used for IPRI	Year	Number of Countries Included in Original Database	Source	More Detailed Information About Source
Property Rights Protection	1 (worst) - 7 (best)	The original data was rescaled to a scale of 0 - 10	2006	125	World Economic Forum— Global Competitiveness Report <a href="http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm">http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm</a>	Survey participants were asked to comment "Property rights, including over financial assets are poorly defined and not protected by law (1) to are clearly defined and well protected by law (7)
Procedures/Days to register property	Actual number	The "Registering Property" variable is a weighted average of the source's "Procedures to register property" and "Days to register property" data information, with 30% of the weight given to the former and 70% to the latter. The standardization formula used to calculate the zero-to-10 ratings for this component was: $(V_{max} - V_i) / (V_{max} - V_{min})$ multiplied by 10. The values for $V_{max}$ and $V_{min}$ were set 1 standard deviation above average and 0, respectively.	2005	171	The World Bank Group— Doing Business 2007 <a href="http://www.doingbusiness.org/">http://www.doingbusiness.org/</a>	Number of procedures/days to register property is the number of procedures/days required for a business to secure rights to property. $V_{max}$ for the procedures sub-component was 9 and 191 for the days sub-component
Ease of Access to Loans	1 (worst) - 7 (best))	The original data was rescaled to a scale of 0 - 10	2006	125	World Economic Forum— Global Competitiveness Report <a href="http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm">http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm</a>	The ranking reflects experts' answers to the survey question: How easy is it to obtain a bank loan in your country with only a good business plan and no collateral: Impossible (0) or easy (7)?

## APPENDIX II: DETAILED METHODOLOGY AND DATA SOURCE INFORMATION

### Intellectual Property

Variable Name in Corresponding Database	Original Scale	Rescaling Method used for IPRI	Year	Number of Countries Included in Original Database	Source	More Detailed Information About Source
Intellectual Property Rights Protection	1 (worst) - 7 (best)	The original data was rescaled to a scale of 0 - 10	2006	125	World Economic Forum— Global Competitiveness Report <a href="http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm">http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm</a>	Survey participants were asked to comment "Intellectual property protection in your country as weak or non-existent (1) to is equal to the world's most stringent (7)"
Strength of patent rights	0 (worst) - 5 (best)	The original data was rescaled to a scale of 0 - 10	2000	120	Ginatre-Park Index	A country's rank in patent strength is based on five extensive criteria: coverage, membership in international treaties, restrictions on patent rights, enforcement, and the duration of protection.
Copyright piracy level	%	Calculation per industry: The standardization formula used to calculate the zero-to-10 ratings for this component was: $(V_{max} - V_i) / (V_{max} - V_{min})$ multiplied by 10. The values for $V_{max}$ and $V_{min}$ were set 1 standard deviation above average per industry and 0, respectively. Then average of all industries' piracy level was taken to calculate final value.	2006	64	US Trade Representative (USTR) 301 Watch list <a href="http://www.iipa.com/statistics.html">http://www.iipa.com/statistics.html</a>	Special 301 is an annual review process and a major trade tool in fighting international copyright piracy – a scourge which continues to cause an estimated \$30-\$35 billion in annual losses to the U.S. copyright industries (this estimate excludes losses due to internet piracy). Special 301 and its leverage are a full time process for the copyright industries which work with local private sector representatives, U.S. government officials, and U.S. Embassy officials to address and resolve copyright problems in scores of countries. The industries involved in the data are Business Software, Records & Music, Motion Pictures, and Entertainment Software.
Trademark Protection	1 (best) - 5(worst)	The original data was rescaled to a scale of 0 - 10	1998	40	International Trademark Association (INTA) <a href="http://www.inta.org/">http://www.inta.org/</a>	The data is obtained from the responses of the Trademark Protection Survey that is sent to 230 INTA members with knowledge of the level of trademark protection available in the 40 countries in the study. The survey consists of 13 questions covering registration, maintenance, and enforcement of trademark rights.

## APPENDIX II: DETAILED METHODOLOGY AND DATA SOURCE INFORMATION

### Gender Equality (for IPRI (GE))

Variable Name in Corresponding Database	Original Scale	Rescaling Method used for IPRI	Year	Number of Countries Included in Original Database	Source	More Detailed Information About Source
Women's Social Rights	0 (worst) - 3 (best)	The original data was rescaled to a scale of 0 - 10	2004	195	Cingranelli-Richards (CIRI) Human Rights Dataset <a href="http://www.humanrightsdata.org">http://www.humanrightsdata.org</a>	The Cingranelli and Richards (CIRI) Human Rights Dataset contains standards-based quantitative information on government respect for a wide range of internationally-recognized human rights for countries of all regime-types and from all regions of the world. The data set contains measures of government human rights practices, not human rights policies or overall human rights conditions (which may be affected by non-state actors). The Women's Social Rights Data reflects women's right to own, acquire, manage, and retain property brought into marriage.
Women's access to land	0 (best) - 1 (worst)	The original data was rescaled to a scale of 0 - 10	2006	107	OECD Gender, Institutions and Development Data Base (GID) <a href="http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html">http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html</a>	The Gender, Institutions and Development Data Base (GID) represents a tool for researchers and policy makers to determine and analyse obstacles to women's economic development.
Women's access to bank loans	0 (best) - 1 (worst)	The original data was rescaled to a scale of 0 - 10	2006	107	OECD Gender, Institutions and Development Data Base (GID) <a href="http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html">http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html</a>	The Gender, Institutions and Development Data Base (GID) represents a tool for researchers and policy makers to determine and analyse obstacles to women's economic development.
Women's access to property other than land	0 (best) - 1 (worst)	The original data was rescaled to a scale of 0 - 10	2006	107	OECD Gender, Institutions and Development Data Base (GID) <a href="http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html">http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html</a>	The Gender, Institutions and Development Data Base (GID) represents a tool for researchers and policy makers to determine and analyse obstacles to women's economic development.
Inheritance practices	0 (best) - 1 (worst)	The original data was rescaled to a scale of 0 - 10	2006	117	OECD Gender, Institutions and Development Data Base (GID) <a href="http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html">http://www.oecd.org/document/23/0,2340,en_2649_33947_36225815_1_1_1_1,00.html</a>	The Gender, Institutions and Development Data Base (GID) represents a tool for researchers and policy makers to determine and analyse obstacles to women's economic development.

## APPENDIX III: REGIONAL DIVISION OF COUNTRIES

Region	Country
Africa	Ethiopia
Africa	Kenya
Africa	Malawi
Africa	Mauritius
Africa	Nigeria
Africa	South Africa
Africa	Tanzania
Asia (East)	China
Asia (East)	Hong Kong
Asia (East)	Korea (South)
Asia (East)	Japan
Asia (South)	Bangladesh
Asia (South)	India
Asia (South)	Pakistan
Asia (South-East)	Malaysia
Asia (South-East)	Philippines
Asia (South-East)	Singapore
Asia (South-East)	Thailand
Asia (South-East)	Indonesia
Central and Eastern Europe	Bulgaria
Central and Eastern Europe	Czech Republic
Central and Eastern Europe	Hungary
Central and Eastern Europe	Lithuania
Central and Eastern Europe	Poland
Central and Eastern Europe	Romania
Central and Eastern Europe	Turkey
Western Europe	Austria
Western Europe	Belgium
Western Europe	Denmark
Western Europe	Finland
Western Europe	France
Western Europe	Germany
Western Europe	Greece
Western Europe	Ireland
Western Europe	Italy

## APPENDIX III: REGIONAL DIVISION OF COUNTRIES

Western Europe	Netherlands
Western Europe	Norway
Western Europe	Spain
Western Europe	Sweden
Western Europe	Switzerland
Western Europe	United Kingdom
Western Europe	Portugal
Latin America	Argentina
Latin America	Bolivia
Latin America	Brazil
Latin America	Chile
Latin America	Colombia
Latin America	Costa Rica
Latin America	Dominican Republic
Latin America	Ecuador
Latin America	El Salvador
Latin America	Guatemala
Latin America	Honduras
Latin America	Nicaragua
Latin America	Panama
Latin America	Paraguay
Latin America	Peru
Latin America	Uruguay
Latin America	Venezuela
Middle East/North Africa	Egypt
Middle East/North Africa	Israel
Middle East/North Africa	Morocco
Middle East/North Africa	Tunisia
North America	Canada
North America	Mexico
North America	United States
Oceania	Australia
Oceania	New Zealand
Russia	Russia
Russia	Ukraine

## APPENDIX IV: GENDER EQUALITY (GE) RANKING

Rank	Country	Gender Equality (0= <i>weakest</i> ; 10= <i>strongest</i> )	Rank	Country	Gender Equality (0= <i>weakest</i> ; 10= <i>strongest</i> )
1	Argentina	10.0	34	El Salvador	8.7
	Austria	10.0		Colombia	8.7
	Belgium	10.0		Dominican Republic	8.7
	Canada	10.0		Korea	8.7
	Czech Republic	10.0		Nicaragua	8.7
	Denmark	10.0		Poland	8.7
	Finland	10.0		Portugal	8.7
	Germany	10.0		Romania	8.7
	Ireland	10.0	42	Philippines	8.6
	New Zealand	10.0	43	China	8.4
	Sweden	10.0	44	Peru	8.3
12	Australia	9.3	45	Russia	8.1
	Brazil	9.3	46	Ecuador	8.0
	Bulgaria	9.3		Switzerland	8.0
	Chile	9.3	48	Turkey	7.7
	Costa Rica	9.3	49	Honduras	7.5
	France	9.3	50	Bolivia	7.3
	Hungary	9.3	51	Malaysia	6.9
	Italy	9.3	51	Israel	6.5
	Japan	9.3	53	Indonesia	6.4
	Mauritius	9.3	54	Egypt	6.2
	Mexico	9.3	55	Morocco	6.1
	Netherlands	9.3	56	Tunisia	6.0
	Norway	9.3	57	Ethiopia	5.3
	Panama	9.3	58	Malawi	4.7
	Paraguay	9.3	59	India	4.3
	Spain	9.3	60	Bangladesh	3.5
	Thailand	9.3	61	South Africa	2.9
	Ukraine	9.3	62	Nigeria	2.2
	United Kingdom	9.3	63	Pakistan	2.0
	United States	9.3	64	Kenya	1.8
	Uruguay	9.3	65	Tanzania	0.8
	Venezuela	9.3			





## APPENDIX V: BASIC OPINION SURVEY QUESTIONS

In order to do the study as efficiently as possible and also to be most useful, I would like to ask you for your assistance. For the study, we have to identify the most important components that flow into this property rights measure. Based on your expertise, I would thus like to survey you on the following issues:

- 1) I would like to ask you to identify the top five key measurements that in your opinion should be integrated into the property rights measure, which can be quantified by given data.
  
- 2) Do you know of any studies or data sources which could be helpful for our research?
  
- 3) Are there any persons you can think of that could help us in our work?



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### **Additional Internet Resources**

Andrei Shleifer's Datasets – [www.andrei-shleifer.com/data.html](http://www.andrei-shleifer.com/data.html)

Cadastral Template – [www.cadastraltemplate.org](http://www.cadastraltemplate.org)

Competitive Enterprise Institute – [www.cei.org](http://www.cei.org)

EUROPA Eurostat Homepage – [epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1090,30070682,1090\\_330765\\_76&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1090,30070682,1090_330765_76&_dad=portal&_schema=PORTAL)

FAO Gender and Access to Land – [www.fao.org/DOCREP/005/Y4308E/Y4308E00.HTM](http://www.fao.org/DOCREP/005/Y4308E/Y4308E00.HTM)

International Federation of the Phonographic Industry (IFPI) – [www.ifpi.org](http://www.ifpi.org)

Independent Institute – [www.independent.org/](http://www.independent.org/)

Institute for Justice – [www.ij.org/](http://www.ij.org/)

Millennium Challenge Corporation – [www.mcc.gov/](http://www.mcc.gov/)

PRS Group International Country Risk Guide – [www.prsgroup.com/icrg/icrg.html](http://www.prsgroup.com/icrg/icrg.html)

StopFakes.Gov Home Page – [www.stopfakes.gov](http://www.stopfakes.gov)

USAID U.S. Agency for International Development – [www.usaid.gov/index.html](http://www.usaid.gov/index.html)

World Bank Enterprise Survey – [www.enterprisesurveys.org/Default.aspx](http://www.enterprisesurveys.org/Default.aspx)

World Bank Investment Climate Survey – [iresearch.worldbank.org/ics/jsp/index.jsp](http://iresearch.worldbank.org/ics/jsp/index.jsp)

WIPO Patent Report: Statistics on Worldwide Patent Activity (2006 Edition)-  
[www.wipo.int/ipstats/en/statistics/patents/patent\\_report\\_2006.html#P168\\_18545](http://www.wipo.int/ipstats/en/statistics/patents/patent_report_2006.html#P168_18545)



